



HARVATEK

CATALOGUE

LED

COMPONENTS

General Specification

Application Notes

Surface Mount Chip LED

High Power LED

SMD Display LED

Infrared LED

Digital Display LED

Lamp LED

COB

SMART RGB



LED

HARVATEK

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About Harvatek

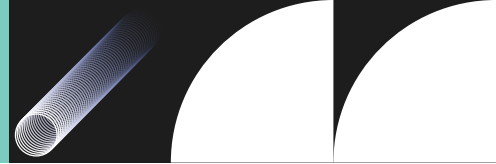
Harvatek Corporation was founded in 1995 and are listed on Taiwan Stock Exchange (TWSE) in 2003 under ticker number 6186. Also one of the SMD LEDs leading manufacturers in the world with 800 employees worldwide.

The Global Technology Leader SMD LED

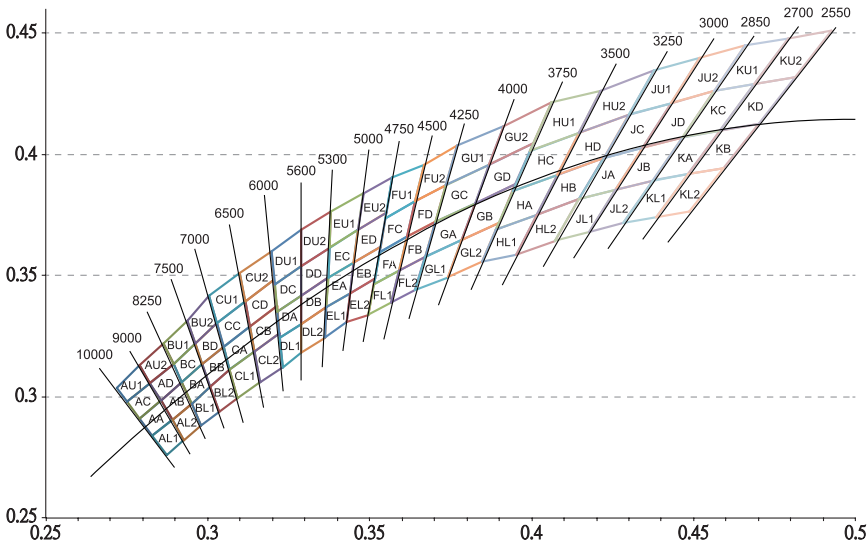
- General Lighting
- Display
- back Lighting
- handheld Device



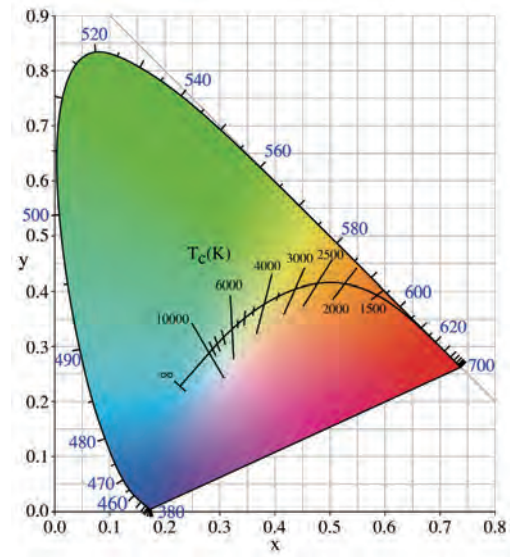
Headquarters and Manufacturing



Correlated Color Temperature Rank (Bin Table)



CIE 1931 Chromaticity Diagram



AA	0.283	0.284	BA	0.295	0.297	CA	0.306	0.311	DA	0.322	0.324	EA	0.336	0.336	FA	0.351	0.346	GA	0.367	0.357	HA	0.388	0.369	JA	0.414	0.381	KA	0.437	0.389		
	0.279	0.291		0.292	0.306		0.304	0.320		0.321	0.335		0.337	0.349		0.353	0.359		0.370	0.372		0.394	0.384		0.422	0.398		0.446	0.407		
	0.285	0.298		0.298	0.313		0.313	0.329		0.341	0.345		0.355	0.344		0.342	0.359		0.352	0.382		0.379	0.408		0.391	0.434		0.402	0.448	0.391	
	0.289	0.290		0.300	0.304		0.314	0.318		0.329	0.33		0.344	0.342		0.359	0.352		0.378	0.364		0.401	0.375		0.425	0.385		0.448	0.391		
AB	0.283	0.284	BB	0.295	0.297	CB	0.306	0.311	DB	0.322	0.324	EB	0.336	0.336	FB	0.351	0.346	GB	0.367	0.357	HB	0.388	0.369	JB	0.414	0.381	KB	0.437	0.389		
	0.289	0.290		0.298	0.313		0.313	0.329		0.341	0.345		0.355	0.344		0.342	0.359		0.352	0.382		0.379	0.408		0.391	0.434		0.402	0.448	0.391	
	0.292	0.306		0.304	0.320		0.321	0.337		0.349	0.353		0.362	0.370		0.372	0.389		0.387	0.414		0.381	0.437		0.389	0.459		0.394	0.458	0.409	
	0.295	0.297		0.306	0.311		0.322	0.326		0.336	0.336		0.351	0.348		0.367	0.357		0.389	0.371		0.414	0.381		0.437	0.389		0.459	0.394	0.458	0.409
AC	0.289	0.290	BC	0.300	0.304	CC	0.314	0.318	DC	0.329	0.33	EC	0.344	0.342	FC	0.359	0.352	GC	0.378	0.364	HC	0.401	0.375	JC	0.425	0.385	KC	0.448	0.391		
	0.279	0.291		0.292	0.306		0.304	0.320		0.321	0.335		0.337	0.349		0.353	0.359		0.370	0.372		0.394	0.384		0.422	0.398		0.446	0.407		
	0.275	0.298		0.289	0.313		0.302	0.330		0.320	0.346		0.337	0.361		0.354	0.373		0.373	0.387		0.399	0.401		0.429	0.416		0.456	0.426	0.468	0.428
	0.282	0.305		0.296	0.322		0.311	0.339		0.329	0.353		0.346	0.368		0.364	0.380		0.386	0.395		0.414	0.408		0.443	0.421		0.468	0.428	0.48	0.409
AD	0.285	0.298	BD	0.298	0.313	CD	0.313	0.329	DD	0.329	0.341	ED	0.345	0.355	FD	0.361	0.365	GD	0.378	0.379	HD	0.408	0.391	JD	0.434	0.402	KD	0.458	0.409		
	0.279	0.291		0.292	0.306		0.304	0.320		0.321	0.335		0.337	0.349		0.353	0.359		0.370	0.372		0.394	0.384		0.422	0.398		0.446	0.407		
	0.282	0.305		0.296	0.322		0.311	0.339		0.329	0.353		0.346	0.368		0.364	0.380		0.386	0.395		0.414	0.408		0.443	0.421		0.468	0.428	0.481	0.431
	0.289	0.313		0.302	0.330		0.320	0.348		0.337	0.361		0.355	0.376		0.373	0.387		0.400	0.404		0.429	0.416		0.456	0.426		0.481	0.431	0.47	0.412
AL1	0.292	0.306	BL1	0.304	0.320	CL1	0.321	0.337	DL1	0.337	0.349	EL1	0.353	0.362	FL1	0.370	0.372	GL1	0.389	0.387	HL1	0.422	0.398	JL1	0.446	0.407	KL1	0.47	0.412		
	0.285	0.298		0.298	0.313		0.313	0.329		0.341	0.345		0.355	0.361		0.365	0.382		0.379	0.408		0.391	0.434		0.402	0.448		0.391			
	0.287	0.276		0.298	0.288		0.309	0.299		0.323	0.312		0.336	0.324		0.349	0.333		0.364	0.344		0.384	0.355		0.407	0.364		0.428	0.371	0.438	0.373
	0.292	0.282		0.303	0.293		0.316	0.305		0.329	0.318		0.342	0.330		0.356	0.338		0.374	0.349		0.395	0.358		0.417	0.367		0.438	0.373	0.438	0.373
AL2	0.287	0.276	BL2	0.298	0.288	CL2	0.309	0.299	DL2	0.323	0.312	EL2	0.336	0.324	FL2	0.349	0.333	GL2	0.364	0.344	HL2	0.384	0.355	JL2	0.407	0.364	KL2	0.428	0.371		
	0.283	0.284		0.295	0.297		0.306	0.311		0.322	0.324		0.336	0.336		0.351	0.346		0.367	0.357		0.388	0.369		0.414	0.381		0.437	0.389		
	0.289	0.290		0.300	0.304		0.314	0.318		0.329	0.33		0.344	0.342		0.359	0.352		0.378	0.364		0.401	0.375		0.425	0.385		0.448	0.391		
	0.292	0.282		0.303	0.293		0.316	0.305		0.329	0.318		0.342	0.330		0.356	0.338		0.374	0.349		0.395	0.358		0.417	0.367		0.438	0.373	0.438	0.373
AU1	0.287	0.276	BU1	0.298	0.288	CU1	0.309	0.299	DU1	0.323	0.312	EU1	0.336	0.324	FU1	0.349	0.333	GU1	0.364	0.344	HU1	0.384	0.355	JU1	0.407	0.364	KU1	0.428	0.371		
	0.292	0.282		0.303	0.293		0.316	0.305		0.329	0.318		0.342	0.330		0.356	0.338		0.374	0.349		0.395	0.358		0.417	0.367		0.438	0.373		
	0.289	0.290		0.300	0.304		0.314	0.318		0.329	0.33		0.344	0.342		0.359	0.352		0.378	0.364		0.401	0.375		0.425	0.385		0.448	0.391		
	0.295	0.297		0.306	0.311		0.322	0.326		0.336	0.336		0.351	0.348		0.367	0.357		0.389	0.371		0.414	0.381		0.437	0.389		0.459	0.394	0.458	0.409
AU2	0.298	0.288	BU2	0.309	0.299	CU2	0.323	0.312	DU2	0.323	0.312	EU2	0.336	0.324	FU2	0.349	0.333	GU2	0.364	0.344	HU2	0.384	0.355	JU2	0.407	0.364	KU2	0.428	0.371		
	0.275	0.298		0.289	0.313		0.302	0.330		0.320	0.346		0.337	0.361		0.354	0.373		0.373	0.387		0.399	0.401		0.429	0.416		0.456	0.426	0.468	0.428
	0.274	0.303		0.286	0.322		0.300	0.341		0.319	0.360		0.338	0.376		0.357	0.360		0.377	0.403		0.406	0.421		0.437	0.434		0.465	0.444	0.465	0.444
	0.282	0.305		0.296	0.322		0.311	0.339		0.329	0.353		0.346	0.368		0.364	0.380		0.386	0.395		0.414	0.408		0.443	0.421		0.468	0.428	0.481	0.431
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	0.279	0.313		0.293	0.331		0.309	0.350		0.329	0.369		0.348	0.384		0.366	0.395		0.391	0.411		0.421	0.426		0.451	0.439		0.479	0.447		
	0.286	0.322		0.300	0.341		0.319	0.360		0.338	0.376		0.357	0.390		0.377	0.403		0.406	0.421		0.437	0.434		0.465	0.444		0.492	0.451		
	0.289	0.313		0.302	0.330		0.320	0.348		0.337	0.361		0.355	0.376		0.373	0.387		0.400	0.404		0.429	0.416		0.456	0.426		0.481	0.431		
AU2	0.282	0.305	BU2	0.296	0.322	CU2	0.311	0.339	DU2	0.329	0.353	EU2	0.346	0.369	FU2	0.364	0.380	GU2	0.386	0.395	HU2	0.414	0.408	JU2	0.443	0.421	KU2	0.468	0.428		
	0.279	0.313		0.293	0.331		0.309	0.350		0.329	0.369		0.348	0.384		0.366	0.395		0.391	0.411		0.421	0.426		0.451	0.439		0.479	0.447		
AU2	0.286	0.322	BU2	0.300	0.341	CU2	0.319	0.360	DU2	0.338	0.376	EU2	0.357	0.390	FU2	0.377	0.403	GU2	0.406	0.421	HU2	0.437	0.434	JU2	0.465	0.444	KU2	0.492	0.451		
	0.289	0.313		0.302	0.330		0.320	0.348		0.337	0.361		0.355	0.376		0.373	0.387		0.400	0.404		0.429	0.416		0.456	0.426		0.481	0.431		
AU2	0.282	0.305	BU2	0.296	0.322	CU2	0.311	0.339	DU2	0.329	0.353	EU2	0.346	0.368	FU2	0.364	0.380	GU2	0.386	0.395	HU2	0.414	0.408	JU2	0.443	0.421	KU2	0.468	0.428		
	0.282	0.305		0.296	0.322		0.311	0.339		0.329	0.353		0.346</																		

Precautions

- ≤ Avoid exposure to moist.
- ≤ Anli-Static precaution must be taken when handling GaN, InGaN and AlInGaP products.
- ≤ It is suggested to connect the unit with a current limiting resistor of the proper size.
 - Avoid applying a reverse voltag beyond the specified limit.
- ≤ Avoid operation beyond the limits as specified by the absolute maximum ragtings.
- ≤ Avoid direct contact with the surface through which the LED emits light.
- ≤ If possible, assemble the unit in a clean room or dust-free environment.

Storage

It's recommended to stroe the products in the following conditions:

Humidity: 60% RH Max.

Temperature: 5~30°C (14°F~86°F)

- Shelf life in sealed bag: 12 Month at < 40°C and < 90%RH. (Base on aluminum laminated mosisture barrier bag.)

≤ After the bag is opened , devices that will be subjected to infrared reflow, vapor-phase reflow or equivalent processing must be:

1. Mounted within 72 hours at factory conditions of ≤ 30°C / 60%RH, or
2. Stored at ≤ 10%RH with zip-lock sealed (time ≤ 168 hours)

Baking

Baking before soldering is recommended when the package has been unsealed for 4 weeks.

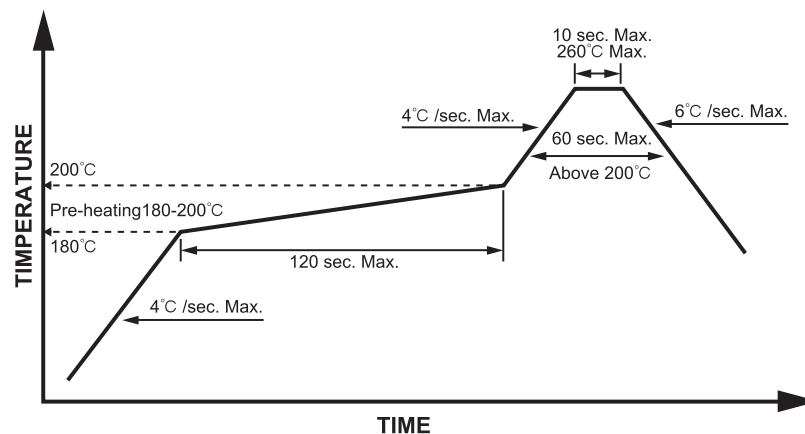
The conditions are as followings:

- ≤ 60±3°C × (12~24hrs) and < 5%RH, taped reel type.
- ≤ 100±3°C × (45min~1hr), bulk type.
- ≤ 130±3°C × (15min~30min), bulk type.

Soldering

Recommend soldering paste specifications:

- ≤ Operating temp.: Above 220°C, 60 seconds.
- ≤ Peak temp.: 260°C Max., 10 seconds Max.
- ≤ Reflow soldering should not be done more than two times.
- ≤ Never attempt next process until the component is cooled down to room temperature after reflow.
- ≤ The recommended reflow soldering profile (measured on the suface of the LED terminal) is as following:



Cleaning

Following are cleaning procedures after soldering:

- ≤ An alcohol-based solvent such as isopropyl alcohol (IPA) is recommended.
- ≤ Temperature × Time should be 50 × 30 sec. or < 30 × 3 min
- ≤ Ultrasonic cleaning: < 15W/ bath; bath volume ≤ 1liter max.
- ≤ Curing: 100 max, < 3min.

Cautions of Pick and Place

- ≤ Avoid stress on the resin at elevated temperature.
- ≤ Avoid rubbing or scraping the resin by any object.
- ≤ Electric-static may cause damage to the component. Please ensure that the equipment is properly grounded.
 - Use of an ionizer fan is recommended.



VISIBLE LED

Series	Dimension (L * W * H) Unit: mm		Surface	Description	page
B0211	0.65 * 0.38 * 0.36	0201	Top View	Single Color	2
B0221	0.65 * 0.38 * 0.36	0201	Top View	Single Color	2
B1501	3.2 * 1.6 * 1.1	1206	Top View	Single Color	3
B1591	3.2 * 1.6 * 1.85	1206	Top View	Single Color	3
B1701	2.0 * 1.3 * 0.8	0805	Top View	Single Color	4
B1811	1.0 * 0.5 * 0.25	0402	Top View	Single Color	4
B1851	1.0 * 0.5 * 0.35	0402	Top View	Single Color	5
B18W1	1.6 * 0.8 * 0.95	0603	Top View	Single Color	5
B13V1	1.6 * 0.8 * 0.66	0603	Top View	Single Color	6
B13L1	1.6 * 0.8 * 0.4	0603	Top View	Single Color	6
B19Y1	1.6 * 0.8 * 0.2	0603	Top View	Single Color	7
B1A81	3.2 * 1.6 * 1.1	1206	Top View	Single Color	7
B2601	3.2 * 1.2 * 1.1	1205	Top View	Single Color	8
B2841	1.0 * 0.5 * 0.5	0402	Top View	Single Color	9
E1221	1.6 * 0.8 * 0.4	0603	Top View	Single Color	9
B1552	3.2 * 2.7 * 1.1	1210	Top View	Bi-Color	10
B17T2	2.0 * 1.3 * 0.5	0805	Top View	Bi-Color	11
B2612	1.6 * 1.5 * 0.55	1616	Top View	Bi-Color	12
B2632	3.2 * 1.2 * 0.8	1205	Top View	Bi-Color	13
B2642	1.6 * 1.5 * 0.7	1616	Top View	Bi-Color	13
B2972	1.6 * 0.8 * 0.5	0603	Top View	Bi-Color	14
B2G32	1.6 * 1.25 * 0.4	2020	Top View	Bi-Color	15
B1191	3.2 * 1.5 * 1.0	1206	Side View	Single Color	15
B12D1	1.6 * 1.0 * 0.6	0603	Side View	Single Color	16
B12H1	1.8 * 1.0 * 0.35	0704	Side View	Single Color	16
B18M1	1.0 * 0.55 * 0.3	0402	Side View	Single Color	17
B21J1	2.1 * 1.0 * 0.6	0804	Side View	Single Color	17
B21M2	3.2 * 1.5 * 1.0	1206	Side View	Bi-Color	18
B21R2	3.0 * 2.0 * 1.0	1208	Side View	Bi-Color	19
B2592	3.2 * 2.55 * 1.6	1210	Side View	Bi-Color	19
B26B3	3.2 * 1.2 * 0.8	1205	Top View	Full Color	20
B26F3	3.2 * 1.2 * 0.8	1205	Top View	Full Color	20
B3803	1.6 * 1.6 * 0.4	1616	Top View	Full Color	21
B3843	1.6 * 1.6 * 0.4	1616	Top View	Full Color	21
B3CQ3	0.95 * 0.95 * 0.25	1010	Top View	Full Color	21
B3CH3	0.95 * 0.95 * 0.45	1010	Top View	Full Color	22
E3623	1.6 * 1.5 * 0.5	1616	Top View	Full Color	22
E3743	2.0 * 1.3 * 0.5	0805	Top View	Full Color	22
B31H3	3.2 * 1.5 * 1.0	1206	Side View	Full Color	23
B31G3	3.2 * 1.5 * 1.0	1206	Side View	Full Color	23
B3233	2.7 * 1.35 * 0.8	1005	Side View	Full Color	23
B3813	1.6 * 1.6 * 0.43	1616	Top View	Mixing by RGB	24
B38G3	1.6 * 1.6 * 0.4	1616	Top View	Mixing by RGB	24
B3C73	1.0 * 1.0 * 0.25	1010	Top View	Mixing by RGB	24

VISIBLE LED

Series	Dimension (L * W * H) Unit: mm		Surface		page
B39P3	0.83 * 0.83 * 0.65	0808	Common Anode	RGB Display	25
B33NB	1.62 * 1.62 * 0.65	4 in 1	Common Cathode	RGB Display	25
B39D3	0.83 * 0.83 * 0.65	0808	Common Cathode	RGB Display	25
B3GDB	2.13 * 2.13 * 0.65	0808 P1.25	Common Cathode	RGB Display	26
B3VC3	0.65*0.65*0.3	0606	Flip Chip	RGB Display	26
B3VF3	0.65*0.65*0.5	0606	Flip Chip	RGB Display	26
B3R43	1.0 * 1.0 * 0.65	1010	Flip Chip	RGB Display	27
B3G0B	1.62 * 1.62 * 0.65	P0.9375	Flip Chip	RGB Display	27
B33TB	1.05 * 1.05 * 0.45	P0.625	Flip Chip	RGB Display	27
B3R14	1.0 * 1.0 * 0.4	1010+CSP	Top View	RGBW	28
B3N04	1.2 * 1.2 * 0.4	1212	Top View	RGBW	28
B32A4	2.7 * 0.8 * 0.95	2708	Side View	RGBW	28
B3DB3	1.6 * 1.6 * 0.9	1616+IC-6PIN	Top View	Addressable RGB	29
B3DK3	2.0 * 2.0 * 0.9	2020+IC-4PIN	Top View	Addressable RGB	29
B3W13	2.0 * 2.0 * 0.9	2020+IC-4PIN	Top View	Addressable RGB	30
B3WB3	2.0 * 2.0 * 0.9	2020+IC-6PIN	Top View	Addressable RGB	30
B3DC3	2.0 * 2.0 * 0.9	2020+IC-6PIN	Top View	Addressable RGB	30
B3DJ3	2.0 * 2.0 * 0.9	2020+IC-6PIN	Top View	Addressable RGB	31
B3DV3	0.7 * 0.7 * 0.6	0707+IC-4PIN	Top View	Addressable RGB	31
B3D13	0.97 * 0.97 * 0.65	1010+IC-5PIN	Top View	Addressable RGB	31
B3DQ3	3.2 * 1.0 * 1.5	3210+IC-6PIN	Side View	Addressable RGB	32
B3WC3	3.2 * 1.0 * 1.5	3210+IC-6PIN	Side View	Addressable RGB	32
T3A33	5.0 * 5.3 * 1.6	5050+IC-6PIN	Top View	PLCC Addressable RGB	32
T3A53	5.0 * 4.85 * 1.6	5050+IC-4PIN	Top View	PLCC Addressable RGB	33
T3AG3	5.0 * 5.3 * 1.6	5050+IC-6PIN	Top View	PLCC Addressable RGB	33
F1961	1.6 * 0.8 * 0.35	0603	Top View	Lead Frame Single Color	34
V1181	3.2 * 1.1 * 0.8	1204	Side View	Lead Frame Single Color	34
T1341	3.0 * 1.4 * 0.70	3014	Top View	PLCC Single Color	35
T1361	3.0 * 1.4 * 0.8	3014	Top View	PLCC Single Color	35
T1551	3.0 * 2.0 * 0.8	3020	Top View	PLCC Single Color	35
T15B1	3.0 * 2.0 * 1.3	3020	Top View	PLCC Single Color	36
T1651	3.5 * 2.8 * 0.75	3528	Top View	PLCC Single Color	36
T1681	3.5 * 2.7 * 1.9	3528	Top View	PLCC Single Color	37
T1691	3.5 * 2.8 * 1.9	3528	Top View	PLCC Single Color	37
T53M1	5.6 * 3.0 * 0.77	5630	Top View	PLCC Single Color	38
T2662	3.5 * 2.8 * 1.9	3528	Top View	PLCC Bi-Color	38
T2682	3.5 * 2.8 * 1.9	3528	Top View	PLCC Bi-Color	39
T36L2	6.1 * 2.8 * 1.85	6128	Top View	PLCC Bi-Color	39
T2133	2.1 * 2.1 * 1.0	2121	Top View	PLCC Tri-Color	40
T3683	3.5 * 2.8 * 1.9	3528	Top View	PLCC Tri-Color	40
T36K3	6.1 * 2.8 * 1.85	3528	Top View	PLCC Tri-Color	41
T3A73	5.4 * 5.1 * 1.0	5050	Top View	PLCC Tri-Color	41
T3A83	5.4 * 5.0 * 1.6	5050	Top View	PLCC Tri-Color	41
F10V1	2.8 * 0.8 * 1.2	2808	Side View	Single Color	42
F10Q1	3.8 * 0.6 * 1.0	3806	Side View	Single Color	42
F10S1	3.8 * 0.42 * 0.9	3804	Side View	Single Color	43
V10V1	2.8 * 0.8 * 1.2	2808	Side View	Single Color	43



VISIBLE LED

Series	Dimension (L * W * H) Unit: mm	Surface			page
S5401	0.46 * 0.35 * 0.15	CSP			44
S6301	0.6 * 0.3 * 0.13	CSP			44
S6321	0.6 * 0.3 * 0.2	CSP			45
S6331	0.6 * 0.3 * 0.25	CSP			45
S6341	0.6 * 0.3 * 0.2	CSP			46
S7421	0.7 * 0.4 * 0.2	CSP			46
S7431	0.7 * 0.4 * 0.25	CSP			47
S7451	0.7 * 0.4 * 0.3	CSP			47
S4803	0.4 * 0.75 * 0.15	CSP			48
S9441	0.9 * 0.4 * 0.3	CSP			48
S7S03	0.675 * 1.025 * 0.25	CSP			49
S1011	1.0 * 1.0 * 0.25	CSP			49
S1021	1.0 * 1.0 * 0.3	CSP			50
S1501	1.45 * 1.45 * 0.25	CSP			50
X1801	1.8 * 1.8 * 0.2	CSP			50
HV-46W2004C-H2.6	3.0 Round LAMP	Lamp	Single Color	Lamp	51
HV-47B2004D	3.0 Round LAMP	Lamp	Single Color	Lamp	51
HV-52G2004C-L53	3.0 Round LAMP	Lamp	Single Color	Lamp	51
HV-57G2004C	3.0 Round LAMP	Lamp	Single Color	Lamp	52
HV-59Y2004C	3.0 Round LAMP	Lamp	Single Color	Lamp	52
HV-62R2004D-L50	3.0 Round LAMP	Lamp	Single Color	Lamp	52
HV-46W3304C	5.0 Round LAMP	Lamp	Single Color	Lamp	53
HV-47B3304C	5.0 Round LAMP	Lamp	Single Color	Lamp	53
HV-52G3304C-L51	5.0 Round LAMP	Lamp	Single Color	Lamp	53
HV-57G3304D	5.0 Round LAMP	Lamp	Single Color	Lamp	54
HV-59Y3303C-L50	5.0 Round LAMP	Lamp	Single Color	Lamp	54
HV-62R3303C-L50	5.0 Round LAMP	Lamp	Single Color	Lamp	54
HV-46W2004W	3.0 Round LAMP	Lamp	Single Color	Lamp	55
HV-59Y2004C-L52	3.0 Round LAMP	Lamp	Single Color	Lamp	55
HV-46W3304C-L53	5.0 Round LAMP	Lamp	Single Color	Lamp	55
HV-52G3304C-L56	5.0 Round LAMP	Lamp	Single Color	Lamp	56
HV-47B3304M	5.0 Round LAMP	Lamp	Single Color	Lamp	56
HV-59Y5063D-L50	4.7 * 5.7 Ellipse LAMP	Lamp	Single Color	Lamp	56
HV-RG22009M	3.0 Round LAMP	Lamp	Bi-Color	Lamp	57
HV-RGB3309M-R2	5.0 Round LAMP	Lamp	Tri-Color	Lamp	57

VISIBLE LED

Series	Dimension (L * W * H) Unit: mm	Surface			page
HV-31210/230/SYG	3.0 Round LAMP+Holder	Array			58
HV-31260/260/UTC	3.0 Round LAMP+Holder	Array			58
HV-315600/330/SYG-G	5.0 Round LAMP+Holder	Array			58
HV-315070/326/SYG	3.0 Round LAMP+Holder	Array			59
HV-317446/260/SYGUYM	3.0 Round LAMP+Holder	Array			59
HV-32690/230/2UYSYGC	3.0 Round LAMP+Holder	Array			59
HV-331390/230/3SYG	3.0 Round LAMP+Holder	Array			60
HV-B1844B/622/4SURSYGM	3.0 * 2.0 Square LAMP+Holder	Array			60
HV-342346/230/4UYOSYGM	3.0 Round LAMP+Holder	Array			60
HV-317446/260/SYG	3.0 Round LAMP+Holder	Array			61
HCD90005	8(0.31)	Digital Display	Single Color	Display	61
HCD89126	7.62(0.3)	Digital Display	Single Color	Display	61
HCD89330	9.2(0.36)	Digital Display	Single Color	Display	62
HCD89081	9(0.35)	Digital Display	Single Color	Display	62
HCD89213	12.66 * 17.74	Digital Display	Single Color	Display	62
HCD89584	20.72 * 10.56	Digital Display	Single Color	Display	63
HCD90034	60.1 * 60.1	Digital Display	Bi-Color	Display	63



INFRARED LED

Part	Series	Dimension (L * W * H) Unit: mm	類別	Surface	Description	page
Emitter SMD	B2851	1.0 * 0.5 * 0.5	0402		Top View	66
Emitter SMD	B13V1	1.6 * 0.8 * 0.66	0603		Top View	66
Emitter SMD	B1911	1.6 * 0.8 * 0.66	0603		Top View	66
Emitter SMD	B19A1	1.6 * 0.8 * 0.66	0603		Top View	67
Emitter SMD	B1701	2.0 * 1.3 * 0.8	0805		Top View	67
Emitter SMD	B17M1	2.0 * 1.3 * 0.8	0805		Top View	67
Emitter SMD	B19H1	1.6 * 0.8 * 0.88	0603		Top View	68
Emitter SMD	B18W1	1.6 * 0.8 * 0.95	0603		Top View	68
Emitter SMD	B26H2	1.6 * 1.5 * 0.55	0606		Top View	68
Emitter SMD	B25G3	2.5 * 1.6 * 0.55	1006		Top View	69
Emitter SMD	B1501	3.2 * 1.6 * 1.1	1206		Top View	69
Emitter SMD	B15T1	3.2 * 1.6 * 1.1	1206		Top View	69
Emitter SMD	B1591	3.2 * 1.6 * 1.85	1206		Top View	70
Emitter SMD	B15U1	3.2 * 1.6 * 1.85	1206		Top View	70
Emitter SMD	B15V1	3.2 * 1.6 * 1.85	1206		Top View	70
Emitter SMD	B15W1	3.2 * 1.6 * 1.85	1206		Top View	71
Emitter SMD	B15X1	3.2 * 1.6 * 1.85	1206		Top View	71
Emitter SMD	B15Y1	3.2 * 1.6 * 1.85	1206		Top View	71
Emitter SMD	BTL11	3.6 * 3.2 * 3.4	1412		Top View	72
Emitter SMD	C35N1	3.45 * 3.45 * 4.0	3535		Top View	72
Emitter SMD	C35P1	3.45 * 3.45 * 3.0	3535		Top View	72
Emitter SMD	C35Y1	3.45 * 3.45 * 2.54	3535		Top View	73
Emitter SMD	C3401	3.45 * 3.45 * 2.16	3535		Top View	73
Emitter SMD	C3411	3.45 * 3.45 * 2.98	3535		Top View	73
Emitter SMD	W2311	2.2 * 1.75 * 0.9	0907		Top View	74
Emitter SMD	W3331	3.1 * 2.25 * 1.6	1209		Top View	74
Emitter SMD	T2821	2.75 * 2.0 * 1.65	1108		Top View	74
Emitter SMD	T3801	3.7 * 3.7 * 2.34	3737		Top View	75
Emitter SMD	T16C1	3.5 * 2.7 * 1.9	3527		Top View	75
Emitter SMD	T16P1	3.5 * 2.8 * 1.9	3528		Top View	75
Emitter SMD	T16W1	3.5 * 2.8 * 0.65	3528		Top View	76
Emitter SMD	T3A83	5.4 * 5.0 * 1.6	5450		Top View	76
Emitter SMD	T5301	5.7 * 3.0 * 0.9	5730		Top View	76
Emitter SMD	B18M1	1.0 * 0.55 * 0.3	0402		Side View	77
Emitter SMD	B1101	3.2 * 1.5 * 1.0	1206		Side View	77
Emitter SMD	B12F1	1.6 * 1.0 * 0.6	0604		Side View	77
Emitter SMD	B2141	3.0 * 2.0 * 1.0	1107		Side View	78
Emitter SMD	B2151	3.0 * 2.0 * 1.0	1107		Side View	78
Emitter SMD	B2571	3.2 * 2.55 * 1.6	1210		Side View	78
Emitter SMD	B2591	3.2 * 2.55 * 1.6	1210		Side View	79
Emitter SMD	B4301	3.0 * 2.35 * 1.6	1109		Side View	79
Emitter SMD	F1081	2.8 * 1.2 * 0.8	1104		Side View	80
Emitter SMD	B18Q1	1.0 * 0.31 * 0.55	0201		Side View	80

INFRARED LED

Part	Series	Dimension (L * W * H) Unit: mm	類別	Surface	Description	page
Phototransistor SMD	B13V1	1.6 * 0.8 * 0.66	0603		Top View	81
Phototransistor SMD	B1701	2.0 * 1.3 * 0.8	0805		Top View	81
Phototransistor SMD	B19H1	1.6 * 0.8 * 0.88	0603		Top View	81
Phototransistor SMD	B17L1	2.0 * 1.3 * 1.1	0805		Top View	82
Phototransistor SMD	B1501	3.2 * 1.6 * 1.1	1206		Top View	82
Phototransistor SMD	B15W1	3.2 * 1.6 * 1.85	1206		Top View	82
Phototransistor SMD	B15Y1	3.2 * 1.6 * 1.85	1206		Top View	83
Phototransistor SMD	B2151	3.0 * 2.0 * 1.0	1108		Side View	83
Phototransistor SMD	B4301	3.0 * 2.35 * 1.6	1109		Side View	83
Photo Diode SMD	B17M1	2.0 * 1.3 * 0.8	0805		Top View	84
Photo Diode SMD	B1501	3.2 * 1.6 * 1.1	1206		Top View	84
Photo Diode SMD	B15P1	3.2 * 2.7 * 1.1	1210		Top View	84
Photo Diode SMD	B15W1	3.2 * 1.6 * 1.85	1206		Top View	85
Photo Diode SMD	B4471	4.4 * 3.7 * 0.55	1715		Top View	85
Photo Diode SMD	T1691	3.5 * 2.8 * 1.9	3528		Top View	85
Photo Diode SMD	W2311	2.2 * 1.75 * 0.9	0907		Top View	86
Photo Diode SMD	B2151	3.0 * 2.0 * 1.0	1108		Side View	86
Interrupter	B4192	1.9 * 1.4 * 0.6	0705		Top View	87
Interrupter	T4642	4.6 * 3.4 * 1.5	4634		Top View	87
Interrupter	E4V12	1.55 * 1.1 * 0.55	0604		Top View	87
Light Sensor	B19H1	1.6 * 0.8 * 0.88	0603		Top View	88
Light Sensor	B19V1	1.7 * 0.8 * 0.65	0703		Top View	88
Light Sensor	B15P1	3.2 * 2.7 * 1.1	1210		Top View	88
VCSEL	E28B1	1.0 * 0.5 * 0.5	0202		Top View	89
VCSEL	E1501	3.2 * 1.6 * 1.1	1206		Top View	89
VCSEL	D1711	2.04 * 1.64 * 0.8	0806		Top View	89
Emitter	HV-85I2004C-L50	3.0 Round IR LAMP	Lamp		Top View	90
Emitter	HV-94I2004C-L52	3.0 Round IR LAMP	Lamp		Top View	90
Emitter	HV-85I3304C-L50	5.0 Round IR LAMP	Lamp		Top View	90
Emitter	HV-94I3303C-L52	5.0 Round IR LAMP	Lamp		Top View	91
Emitter	HV-94IS118C-P6-DA	4.6 * 1.7 * 4.5 SIDE LOOK IR LED	Side-Look		Side View	91
Phototransistor	HV-1302004B-L50	3.0 Round PT LAMP	Lamp		Top View	92
Phototransistor	HV-1303304B	5.0 Round PT LAMP	Lamp		Top View	92
Phototransistor	HV-1302559B-H2-L2	4.8 * 2.5 * 4.5 SIDE LOOK PT LED	Side-Look		Side View	93
Phototransistor	HV-130S118C-P6	4.6 * 1.7 * 4.5 SIDE LOOK PT LED	Side-Look		Side View	93
Photo Diode	HV-1202004B-L3	3.0 Round PD LAMP	Lamp		Top View	94
Photo Diode	HV-1203304B-L6	5.0 Round PD LAMP	Lamp		Top View	94
Interrupter	HV-21S140116/S11C	14.0 * 6.0 * 11.6	Interrupter		Transmissive	95
Interrupter	HV-21S130100/S11C-F2	13.0 * 6.0 * 10.0	Interrupter		Transmissive	95
Interrupter	HV-21S140100/S11C	14.0 * 6.0 * 10.0	Interrupter		Transmissive	95
Interrupter	HV-22S087059/829B	8.7 * 3.5 * 5.9	Interrupter		Reflective	96
Interrupter	HV-22S064065/242B	6.4 * 4.9 * 6.5	Interrupter		Reflective	96
Interrupter	HV-22S101055/ 829B-L8-F28	10.1 * 5.6 * 5.5	Interrupter		Reflective	96
Interrupter	HV-22S106059/200B	10.65 * 5.65 * 5.9	Interrupter		Reflective	96



| **HARVATEK**

The background of the entire page is black. Several diagonal beams of light, resembling spectra, are scattered across the frame. One prominent beam in the lower-left quadrant shows a full spectrum of colors from blue to red. Other beams in the upper-left and lower-right show partial spectra, primarily in the blue and green regions. The beams have a soft, glowing quality with some internal texture.

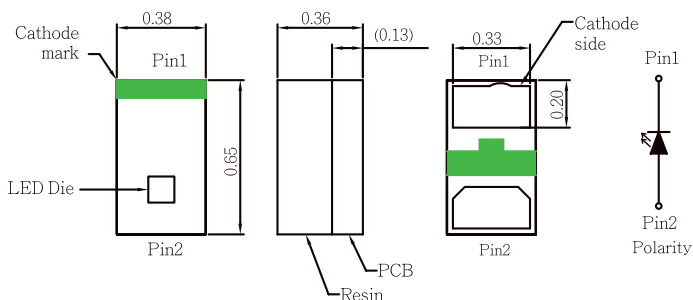
VISIBLE LED



B0211 Series



Outline Dimensions

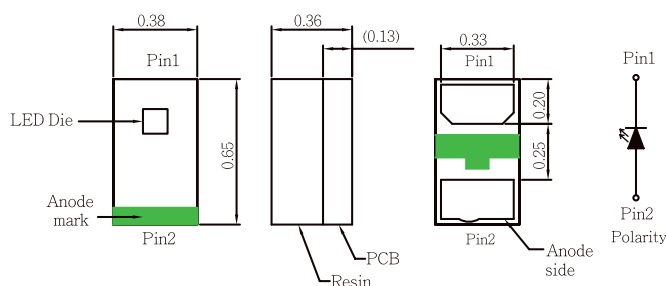


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B0211NG		● Green	2.50	531	100.0	
B0211NB		● Blue	2.60	468	15.0	
B0211BP	0.65 * 0.38 * 0.36	○ White	2.60	x=0.300 y=0.296	55	2
B0211TXY		● Warm White	2.60	x=0.433 y=0.393	70	

B0221 Series



Outline Dimensions

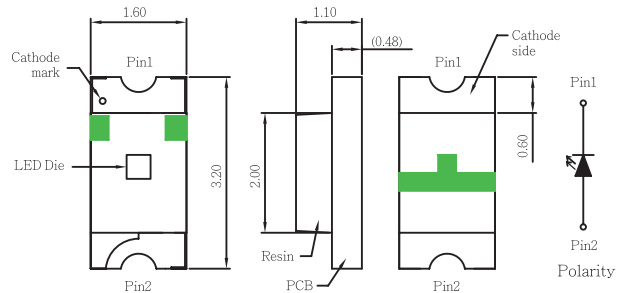


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B0221USD		● Red	1.80	621	7.15	
B0221UY	0.65 * 0.38 * 0.36	● Amber	1.90	588	9.00	2
B0221UYG		● Yellow Green	1.90	570	5.00	

B1501 Series



Outline Dimensions

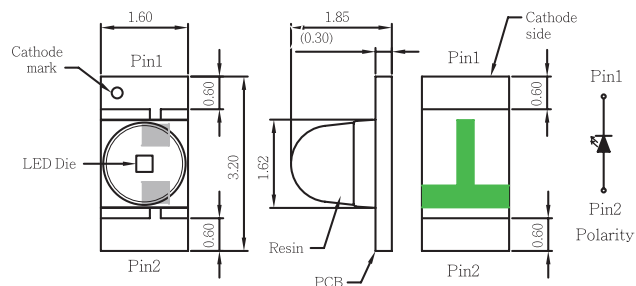


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)	
			Typ.		Typ.		
B1501USD	3.2 * 1.6 * 1.1	● Red	2.00	624	71.50	20	
B1501UD		● Orange	2.00	605	71.50		
B1501UY		● Amber	2.00	589	71.50		
B1501UYG		● Yellow Green	2.10	571	71.50		
B1501YG		● Yellow Green	2.20	573	18.00		
B1501NG		● Green	3.30	525	285.00		
B1501NB		● Blue	3.30	470	112.50		
B1501TX		○ White	3.20	x=0.310 y=0.310	300.00		
B1501USD		● Red	2.00	624	18.00		5
B1501UD		● Orange	2.00	605	11.25		
B1501UYG	● Yellow Green	2.10	571	11.25			
B1501NB	● Blue	2.80	472	28.50			

B1591 Series



Outline Dimensions



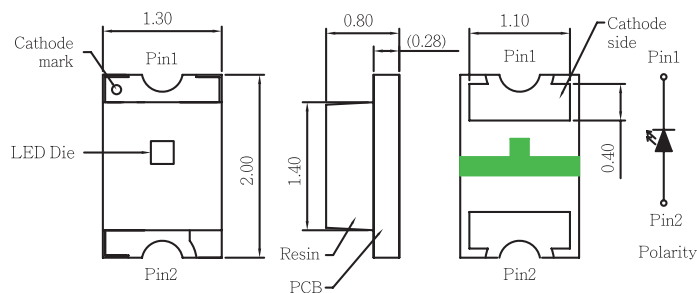
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B1591USD	3.2 * 1.6 * 1.85	● Red	2.00	624	900.00	20
B1591UD		● Orange	2.00	605	1800.00	
B1591UY		● Amber	2.00	589	1125.00	
B1591UYG		● Yellow Green	2.10	571	715.00	
B1591NG		● Green	3.30	525	1440.00	
B1591NB		● Blue	3.30	470	2250.00	
B1591USD	● Red	2.00	624	360.00	5	
B1591UYG	● Yellow Green	2.10	571	285.00		
B1591NB	● Blue	2.80	472	360.00		



B1701 Series



Outline Dimensions

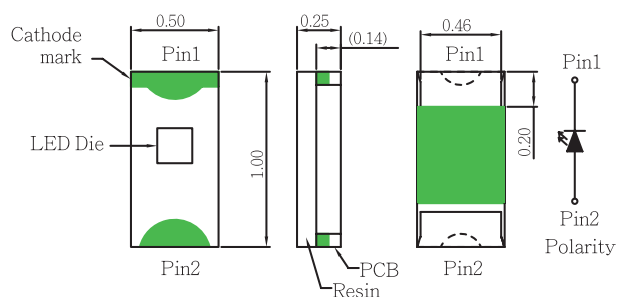


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B1701USD	2.0 * 1.3 * 0.8	● Red	2.00	624	112.50	20
B1701UD		● Orange	2.00	605	71.50	
B1701UY		● Amber	2.00	589	71.50	
B1701UYG		● Yellow Green	2.10	571	71.50	
B1701NG		● Green	3.30	525	285.00	
B1701NB		● Blue	3.30	470	71.50	
B1701TX		○ White	3.20	x=0.290 y=0.285	430.00	5
B1701UY		● Amber	2.00	589	11.25	
B1701UYG		● Yellow Green	2.10	571	11.25	
B1701NG		● Green	2.80	529	71.50	
B1701NB	● Blue	2.80	472	28.50		

B1811 Series



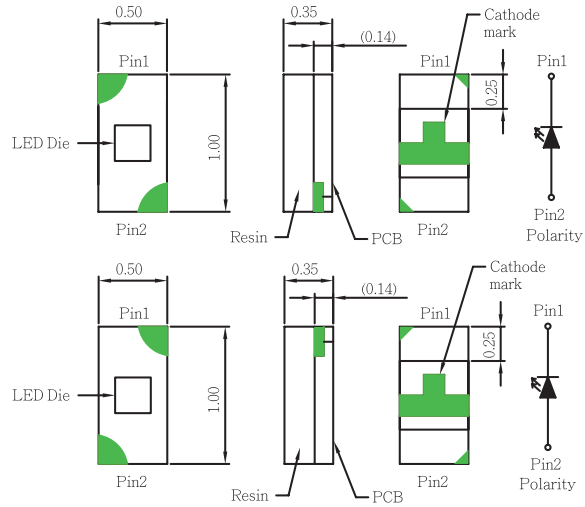
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B1811USD	1.0 * 0.5 * 0.25	● Red	2.00	624	71.50	20
B1811UD		● Orange	2.00	605	112.50	
B1811UY		● Amber	2.00	589	71.50	
B1811UYG		● Yellow Green	2.10	571	71.50	
B1811NG		● Green	3.30	525	560.00	
B1811NB		● Blue	3.30	470	140.00	
B1811TX		○ White	2.80	x=0.290 y=0.285	320.00	5

B1851 Series

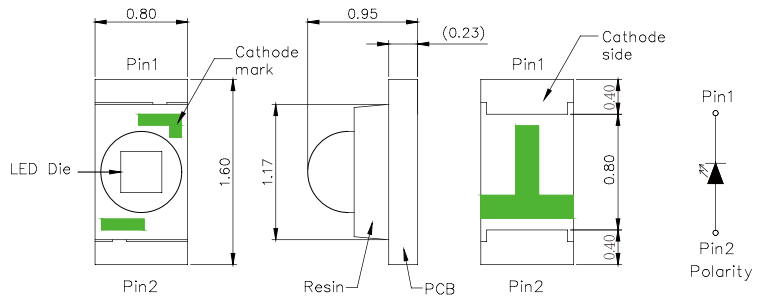
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B1851NG	1.0 * 0.5 * 0.35	● Green	2.80	529	285.00	5
B1851NB		● Blue	2.80	472	71.50	
B1851TX		○ White	2.85	x=0.290 y=0.285	220.00	

B18W1 Series

Outline Dimensions



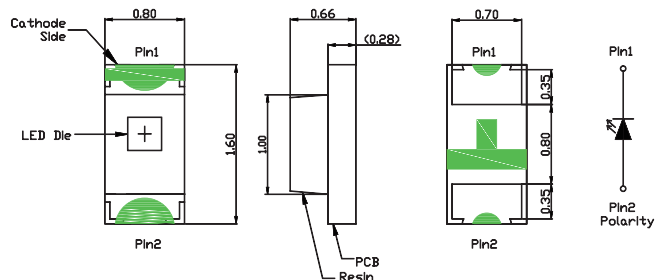
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B18W1USD	1.6 * 0.8 * 0.95	● Red	2.00	624	715.00	20
B18W1UY		● Amber	2.00	589	360.00	
B18W1UYG		● Yellow Green	2.10	571	360.00	
B18W1NG		● Green	3.30	525	2250.00	
B18W1NB		● Blue	3.30	470	450.00	



B13V1 Series



Outline Dimensions

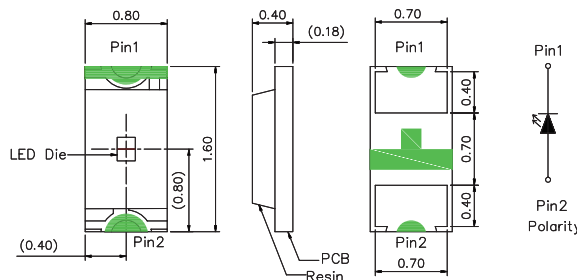


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B13V1USD	1.6 * 0.8 * 0.66	Red	2.00	624	112.50	20
B13V1UD		Orange	2.00	605	112.50	
B13V1UY		Amber	2.00	589	112.50	
B13VUYG		Yellow Green	2.10	571	45.00	
B13V1NG		Green	3.30	525	285.00	
B13V1NB		Blue	3.30	470	71.50	
B13V1TX		White	3.30	x=0.310 y=0.310	550.00	
B13V1USD	1.6 * 0.8 * 0.4	Red	2.00	624	36.00	5
B13V1UY		Amber	2.00	589	18.00	
B13V1UYG		Yellow Green	2.10	571	7.15	
B13V1NB		Blue	2.80	472	18.00	

B13L1 Series



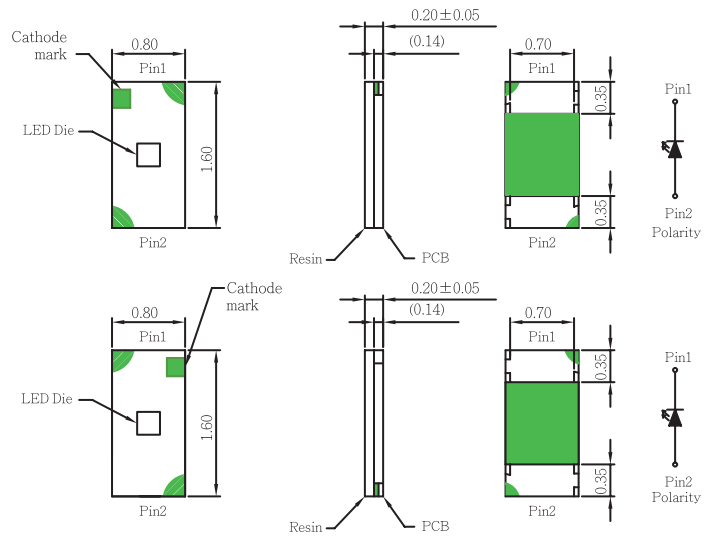
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B13LUSD	1.6 * 0.8 * 0.4	Red	2.00	624	71.50	20
B13L1UD		Orange	2.00	605	45.00	
B13L1UY		Amber	2.00	589	71.50	
B13L1NG		Green	3.30	525	285.00	
B13L1NB		Blue	3.30	470	112.50	
B13L1USD		1.6 * 0.8 * 0.4	Red	2.00	624	
B13L1UD	Orange		2.00	605	28.50	
B13L1UYG	Yellow Green		2.10	571	18.00	
B13L1NG	Green		2.80	529	112.50	
B13L1NB	Blue		2.80	472	28.50	
B13L1BP		White	2.85	x=0.290 y=0.285	285.00	

B19Y1 Series

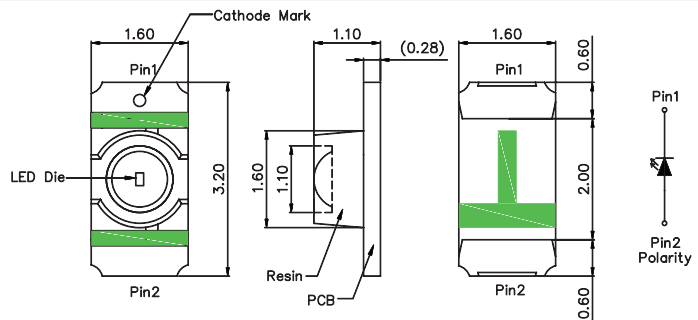
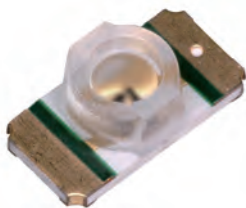
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B19Y1USD	1.6 * 0.8 * 0.2	● Red	2.00	624	71.5	20
B19Y1UY		● Amber	2.00	589	71.5	
B19Y1UYG		● Yellow Green	2.10	571	45.0	
B19Y1NG		● Green	3.30	525	360.0	
B19Y1NB		● Blue	3.30	465	112.5	
B19Y1TX		○ White	2.90	x=0.310 y=0.310	300.00	

B1A81 Series

Outline Dimensions

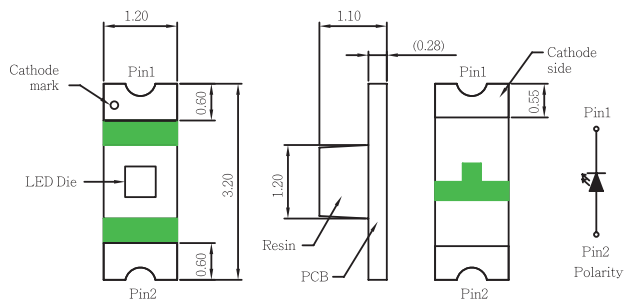


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B1A81UY	3.2 * 1.6 * 1.1	● Amber	2.00	589	340.00	20



B2601 Series

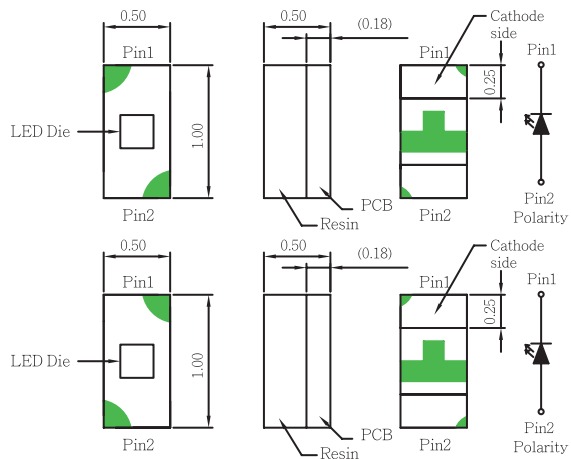
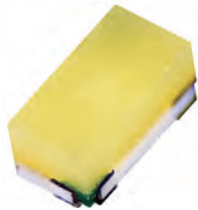
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B2601USD	3.2 * 1.2 * 1.1	● Red	2.00	624	112.50	20
B2601UY		● Amber	2.00	589	180.00	
B2601UYG		● Yellow Green	2.10	571	71.50	
B2601NG		● Green	3.30	525	360.00	
B2601NB		● Blue	3.30	470	112.50	
B2601TX		○ White	3.20	x=0.290 y=0.285	350.00	
B2601USD		● Red	2.00	624	18.00	
B2601UD	● Orange	2.00	605	18.00		
B2601UY	● Amber	2.00	589	18.00		
B2601UYG	● Yellow Green	2.10	571	11.25		
B2601NG	● Green	2.80	529	180.00		
B2601NB	● Blue	2.80	472	18.00		
B2601TX	○ White	2.90	x=0.290 y=0.285	90.00		

B2841 Series

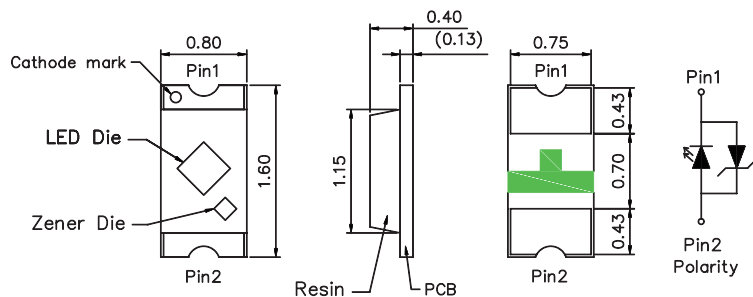
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B2841NG	1.0 * 0.5 * 0.5	● Green	3.30	525	285.00	20
B2841NB		● Blue	3.30	470	45.00	
B2841TX		○ White	3.20	x=0.290 y=0.285	500.00	
B2841NG		● Green	2.80	529	71.50	5
B2841NB		● Blue	2.80	472	18.00	
B2841TX		○ White	2.90	x=0.290 y=0.285	200.00	

E1221 Series

Outline Dimensions

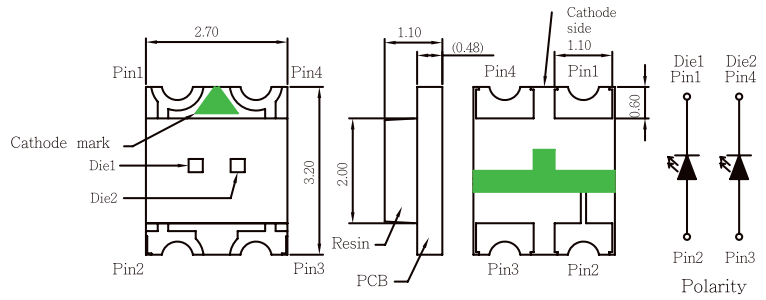


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
E1221TX	1.6 * 0.8 * 0.4	○ White	2.85	x=0.290 y=0.285	200.00	5



B1552 Series

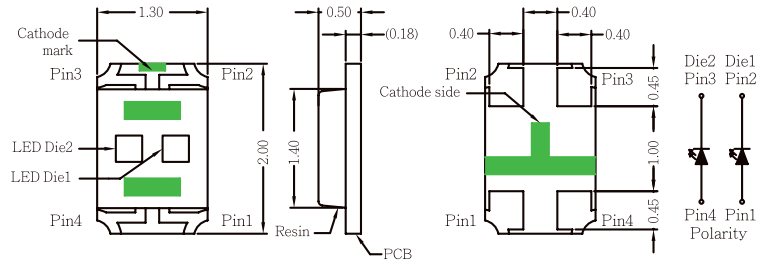
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B1552USUY	3.2 * 2.7 * 1.1	● Red	2.00	624	112.50	20
		● Amber	2.00	589	71.50	
B1552USUG		● Red	2.00	624	71.50	
		● Yellow Green	2.10	571	45.00	
B1552USNB		● Red	2.00	624	112.50	
		● Blue	3.30	470	112.50	
B1552UYUG		● Amber	2.00	589	112.50	
		● Yellow Green	2.10	571	71.50	
B1552UYNB		● Amber	2.00	589	112.50	
		● Blue	3.30	470	112.50	
B1552USNB	● Red	2.00	624	28.50	5	
	● Blue	2.80	472	28.50		

B17T2 Series

Outline Dimensions

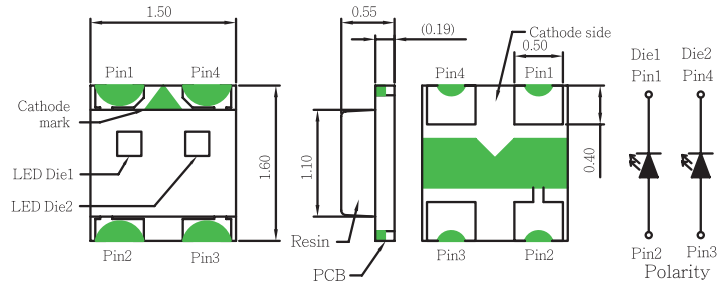
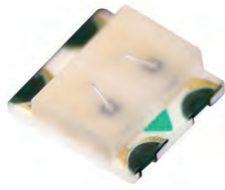


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)	
			Typ.		Typ.		
B17T2USUG	2.0 * 1.3 * 0.5	● Red	2.00	624	112.50	20	
B17T2USNG		● Yellow Green	2.10	571	71.50		
B17T2USNB		● Red	2.00	624	112.50		
B17T2UGUD		● Green	3.30	525	285.00		
B17T2USTX		● Red	2.00	624	71.50		
B17T2UDNB		○ White	3.30	x=0.2900 y=0.2850	350.00		
B17T2UDNB		● Orange	2.00	605	28.50		5
B17T2UDNB		● Blue	2.80	468	45.00		



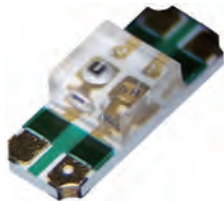
B2612 Series

Outline Dimensions

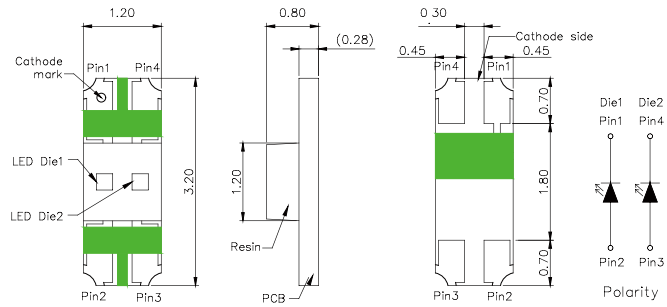


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B2612USUG	1.6 * 1.5 * 0.55	● Red	2.00	624	112.50	20
		● Yellow Green	2.10	571	71.50	
B2612USNB		● Red	2.00	624	71.50	
		● Blue	3.30	470	71.50	
B2612UDUG		● Orange	2.00	605	71.50	
		● Yellow Green	2.10	571	45.00	
B2612UDNB		● Orange	2.00	605	71.50	
		● Blue	3.30	470	71.50	
B2612UGUY		● Yellow Green	2.10	571	45.00	
B2612UGNB		● Amber	2.00	589	71.50	
	● Yellow Green	2.10	571	71.50		
B2612UDNB	● Blue	3.30	470	71.50		
	● Orange	2.00	605	28.50		
B2612UDBP	● Blue	2.80	472	18.00		
	● Orange	2.00	605	28.50		
B2612UYNG	○ White	2.90	x=0.290 y=0.285	112.50	5	
	● Amber	2.00	589	28.50		
	● Green	2.80	529	71.50		

B2632 Series



Outline Dimensions

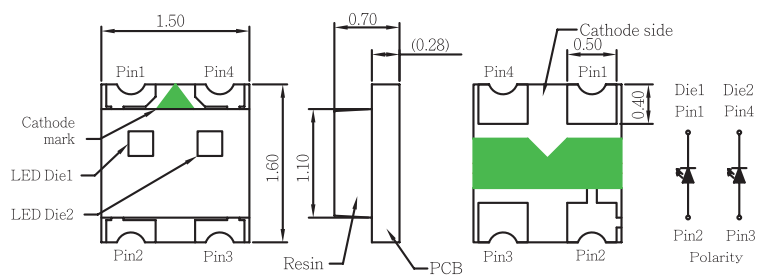


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B2632USUG	3.2 * 1.2 * 0.8	● Red	2.00	624	112.50	20
		● Yellow Green	2.10	571	71.50	
B2632USNG		● Red	2.00	624	180.00	
		● Green	3.30	525	285.00	
B2632USNB		● Red	2.00	624	45.00	5
		● Blue	3.30	470	71.50	
B2632USNG		● Red	2.00	624	45.00	
		● Green	2.80	529	112.50	
B2632UDNB		● Orange	2.00	605	18.00	
		● Blue	2.80	472	28.50	
B2632UDBP	○ White	2.85	x=0.290 y=0.285	70.00		

B2642 Series



Outline Dimensions

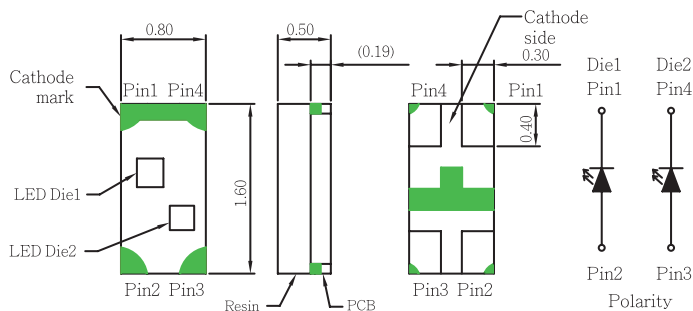
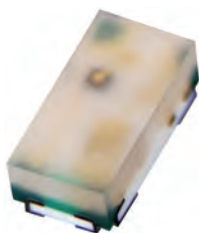


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B2642USUG	1.6 * 1.5 * 0.7	● Red	2.00	624	71.50	20
		● Yellow Green	2.10	571	45.00	



B2972 Series

Outline Dimensions

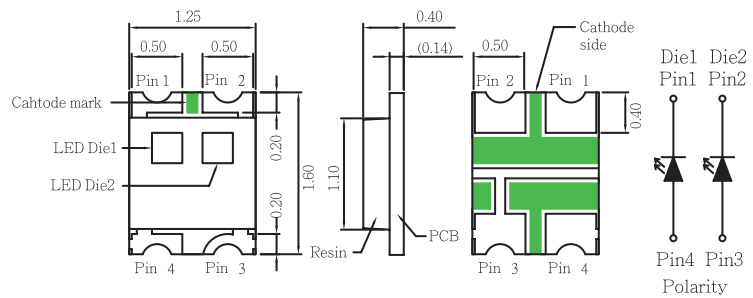


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B2972USUG	1.6 * 0.8 * 0.5	● Red	2.00	624	112.50	20
B2972USNG		● Yellow Green	2.10	571	71.50	
		● Red	2.00	624	112.50	
B2972USNB		● Green	3.30	525	180.00	
		● Red	2.00	624	71.50	
B2972UDUG		● Blue	3.30	470	71.50	
		● Orange	2.00	605	71.50	
B2972UDNB		● Yellow Green	2.10	571	71.50	
		● Orange	2.00	605	71.50	
B2972UGNB		● Blue	3.30	470	71.50	
		● Yellow Green	2.10	571	71.50	
B2972USNB		● Blue	3.30	470	71.50	
		● Red	2.00	624	28.50	
B2972UDNB		● Blue	2.80	472	28.50	
	● Orange	2.00	605	18.00		
B2972UGNB	● Blue	2.80	472	18.00		
	● Yellow Green	2.10	571	18.00		
B2972UGNB	● Blue	2.80	472	28.50		
	● Blue	2.80	472	28.50		

B2G32 Series



Outline Dimensions

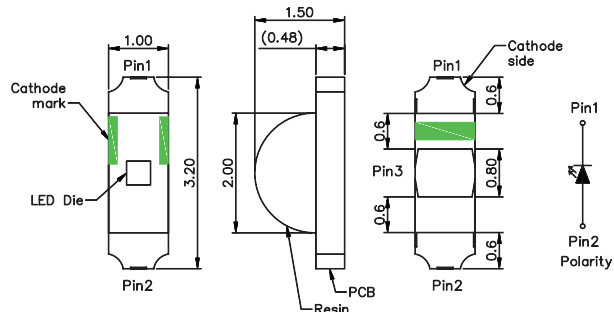


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B2G32USNB	1.6 * 1.25 * 0.4	● Red	2.00	624	45.00	20
B2G32UYUG		● Blue	3.30	470	28.50	
B2G32NBUD		● Amber	2.00	589	45.00	
		● Yellow Green	2.10	571	28.50	
B2G32NBUY		● Blue	3.30	470	112.50	
		● Orange	2.00	605	112.50	
B2G32NBUY		● Blue	3.30	470	112.50	
		● Amber	2.00	589	71.50	

B1191 Series



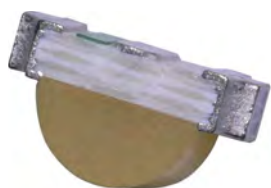
Outline Dimensions



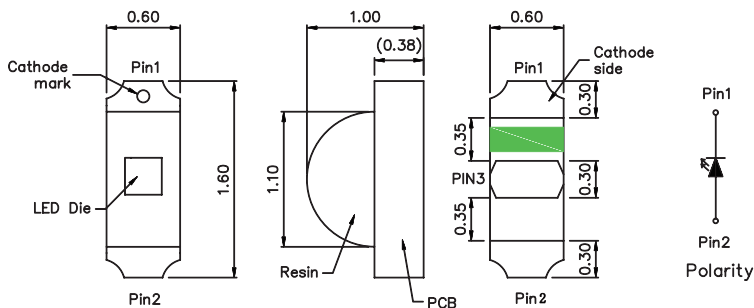
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)	
			Typ.		Typ.		
B1191USD	3.2 * 1.5 * 1.0	● Red	2.00	624	71.5	20	
B1191UY		● Amber	2.00	589	112.5		
B1191UYG		● Yellow Green	2.10	571	28.5		
B1191NG		● Green	3.30	525	360.0		
B1191NB		● Blue	3.30	470	112.5		
B1191TX		○ White	3.30	X=0.290 Y=0.285	300.0		
B1191USD		● Red	2.00	624	28.5		5
B1191UD		● Orange	2.00	605	28.5		
B1191UY		● Amber	2.00	589	45.0		
B1191UYG		● Yellow Green	2.10	571	18.0		
B1191NB		● Blue	2.80	472	28.5		
B1191TX		○ White	2.90	X=0.290 Y=0.285	125.0		



B12D1 Series



Outline Dimensions

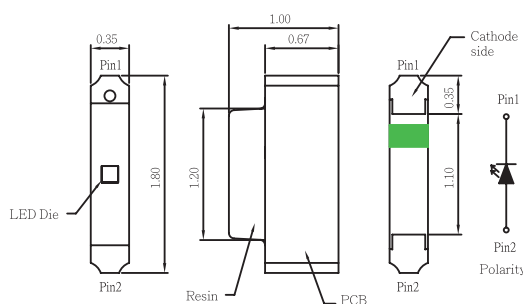


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B12D1USD	1.6 * 1.0 * 0.6	● Red	2.00	624	112.5	20
B12D1UD		● Orange	2.00	605	71.5	
B12D1UY		● Amber	2.00	589	112.5	
B12D1UYG		● Yellow Green	2.10	571	112.5	
B12D1NG		● Green	3.30	525	285.0	
B12D1NB		● Blue	3.30	470	71.5	
B12D1TX		○ White	3.30	X=0.290 Y=0.285	320.0	5
B12D1UD		● Orange	2.00	605	28.5	
B12D1UY		● Amber	2.00	589	28.5	
B12D1UYG		● Yellow Green	2.10	571	28.5	
B12D1NG		● Green	2.80	529	112.5	
B12D1NB		● Blue	2.80	472	28.5	
B12D1TX	○ White	2.90	X=0.290 Y=0.285	100.0		

B12H1 Series

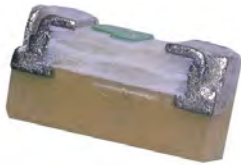


Outline Dimensions

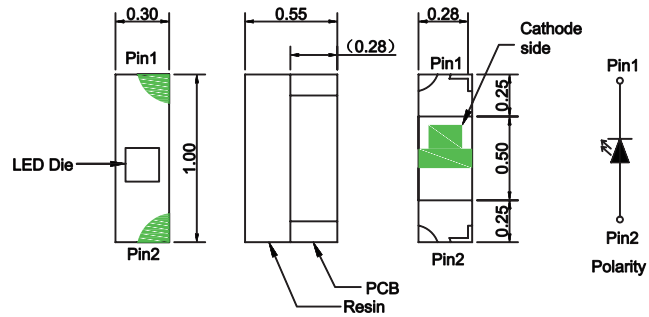


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B12H1USD	1.8 * 1.0 * 0.35	● Red	2.00	624	71.5	20
B12H1NG		● Green	3.30	525	180	
B12H1NB		● Blue	3.30	470	112.5	
B12H1TX		○ White	2.90	X=0.290 Y=0.285	150	5

B18M1 Series



Outline Dimensions

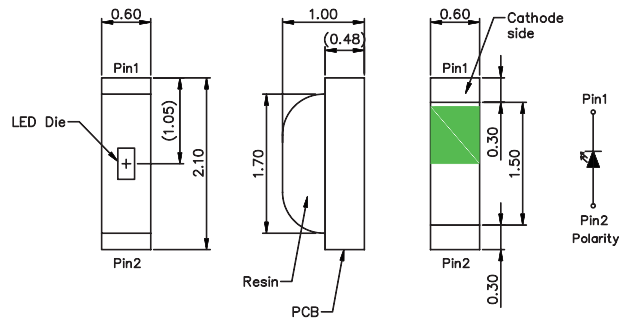


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B18M1NG	1.0 * 0.55 * 0.3	● Green	2.80	529	226.0	5
B18M1NB		● Blue	2.80	470	28.5	
B18M1TX		○ White	2.90	x=0.290 y=0.285	200.0	

B21J1 Series



Outline Dimensions

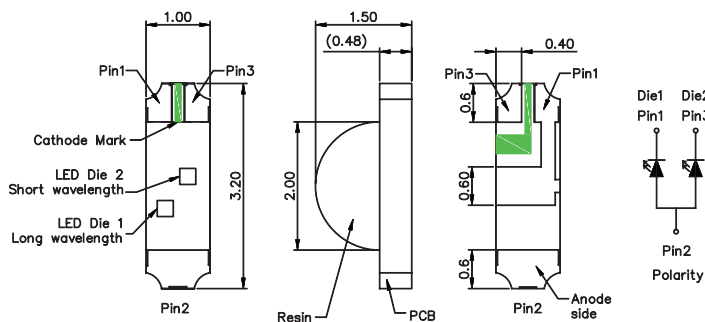


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B21J1USD	2.1 * 1.0 * 0.6	● Red	2.00	624	71.5	20
B21J1NG		● Green	3.30	525	450.0	
B21J1NB		● Blue	3.30	470	71.5	
B21J1UD		● Orange	2.00	605	71.5	
B21J1UY		● Amber	2.00	589	71.5	
B21J1TX		○ White	3.00	x=0.300 y=0.296	700	



B21M2 Series

Outline Dimensions

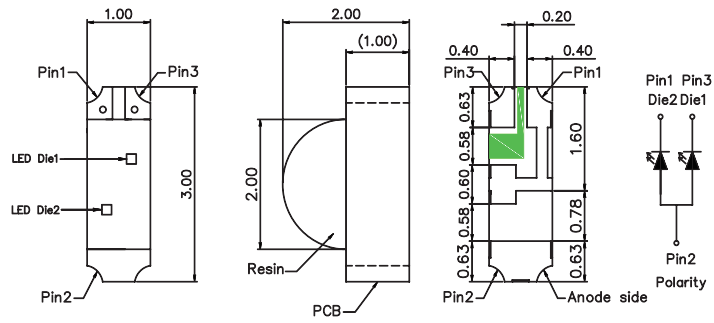


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B21M2USUG	3.2 * 1.5 * 1.0	Red	2.00	624	112.5	20
		Yellow Green	2.10	571	71.5	
B21M2USNG	3.2 * 1.5 * 1.0	Red	2.00	624	71.5	
		Green	3.30	525	285.0	
B21M2USNB	3.2 * 1.5 * 1.0	Red	2.00	624	71.5	
		Blue	3.30	470	71.5	
B21M2UDUG	3.2 * 1.5 * 1.0	Orange	2.00	605	71.5	
		Yellow Green	2.10	571	71.5	
B21M2UDNG	3.2 * 1.5 * 1.0	Orange	2.00	605	71.5	
		Green	3.30	525	285.0	
B21M2UDNB	3.2 * 1.5 * 1.0	Orange	2.00	605	71.5	
		Blue	3.30	470	45.0	
B21M2UYNG	3.2 * 1.5 * 1.0	Amber	2.00	589	71.5	
		Green	3.30	525	285.0	
B21M2UGNB	3.2 * 1.5 * 1.0	Yellow Green	2.10	571	71.5	
		Blue	3.30	470	71.5	
B21M2UDUG	3.2 * 1.5 * 1.0	Orange	2.00	605	18.0	
		Yellow Green	2.10	571	18.0	
B21M2UDNB	3.2 * 1.5 * 1.0	Orange	2.00	605	18.0	
		Blue	2.80	472	28.5	
B21M2UDTX	3.2 * 1.5 * 1.0	Orange	2.00	605	18.0	
		White	2.90	x=0.290 y=0.285	70.0	
B21M2UYNG	3.2 * 1.5 * 1.0	Amber	2.00	589	28.5	
		Amber	2.80	529	180.0	

B21R2 Series



Outline Dimensions

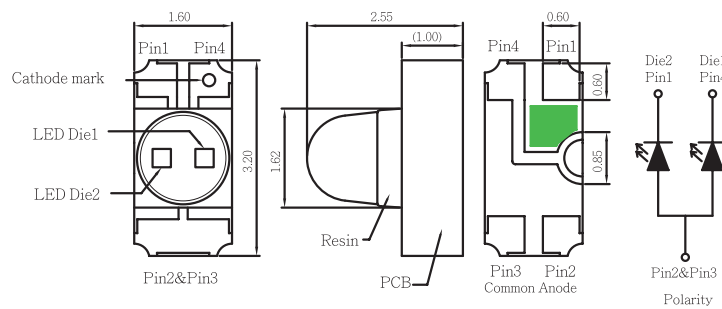


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B21R2USUG	3.0 * 2.0 * 1.0	● Red	2.00	624	112.5	20
		● Yellow Green	2.10	571	71.5	

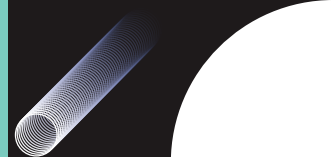
B2592 Series



Outline Dimensions



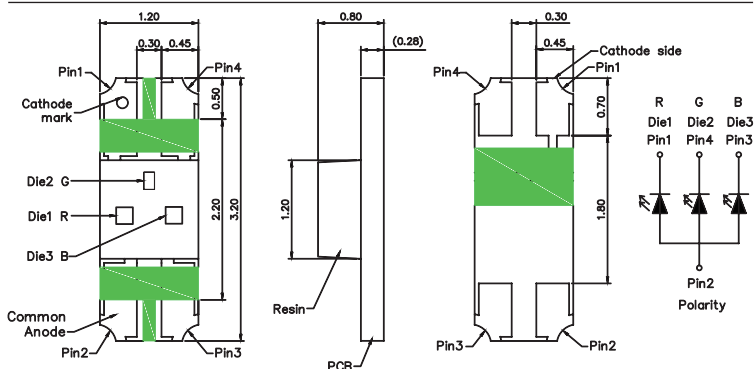
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
B2592USNG	3.2 * 2.55 * 1.6	● Red	2.00	624	71.5	20
B2592UDUG		● Green	3.30	525	285.0	
		● Orange	2.00	605	112.5	
		● Yellow Green	2.10	571	71.5	



B26B3 Series

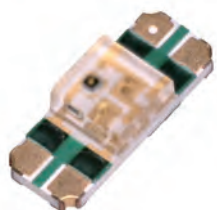


Outline Dimensions

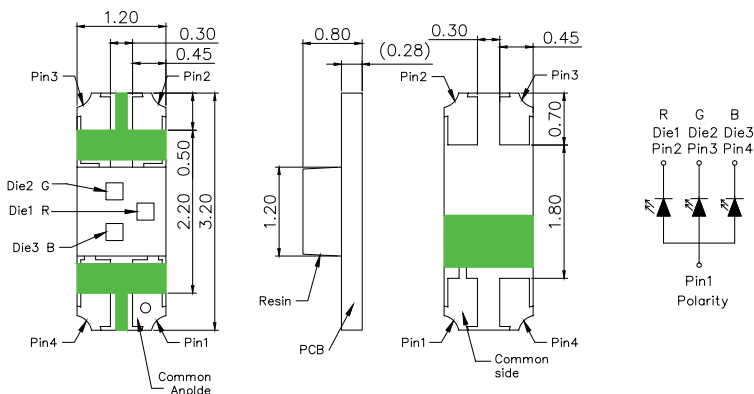


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B26B3RGB	3.2 * 1.2 * 0.8	● Red	1.60	2.40	624	450.0	20
		● Green	2.70	3.90	525	560.0	
		● Blue	2.70	3.90	470	112.5	

B26F3 Series



Outline Dimensions

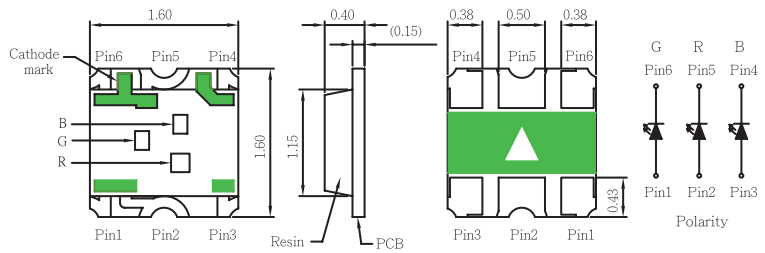


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B26F3BGR	3.2 * 1.2 * 0.8	● Red	1.60	2.40	624	112.5	20
		● Green	2.70	3.90	525	180.0	
		● Blue	2.70	3.90	470	45.0	

B3803 Series

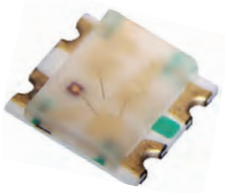


Outline Dimensions

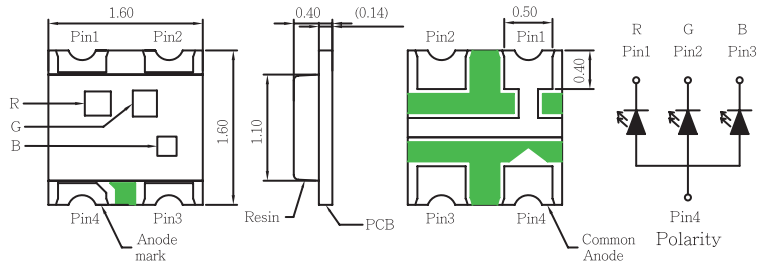


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3803BRG	1.6 * 1.6 * 0.4	Blue	2.70	3.90	470	285.0	20
		Red	1.60	2.40	624	715.0	
		Green	2.70	3.90	525	1125.0	

B3843 Series



Outline Dimensions

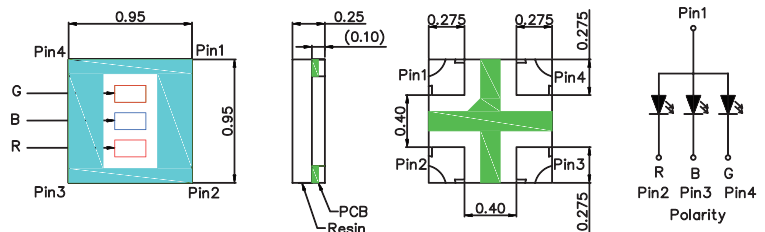


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3843RGB	1.6 * 1.6 * 0.4	Red	1.60	2.40	624	285.0	20
		Green	2.70	3.90	525	900.0	
		Blue	2.70	3.90	470	180.0	

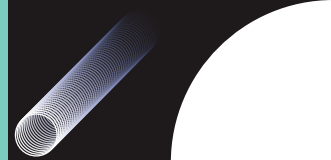
B3CQ3 Series



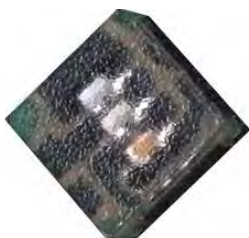
Outline Dimensions



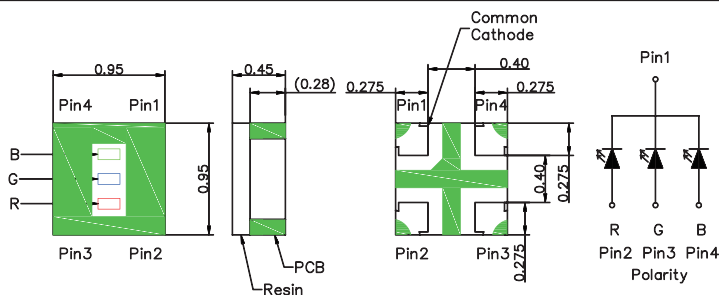
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3CQ3RBG	0.95*0.95*0.25	Red	1.60	2.40	622	60.0	2
		Green	2.10	3.10	530	220.0	
		Blue	2.10	3.10	467	40.0	



B3CH3 Series



Outline Dimensions

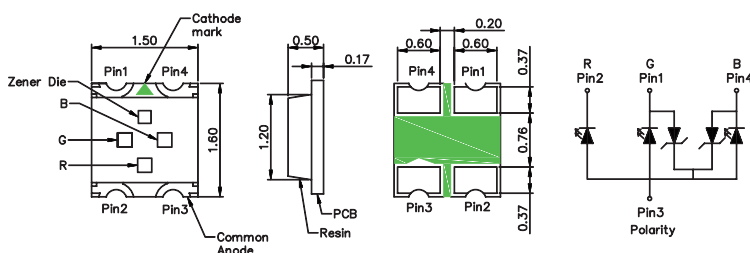


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3CH3RGB	0.95*0.95*0.45	● Red	1.90	2.40	619	40.0	2
		● Green	2.50	3.20	529	130.0	
		● Blue	2.70	3.20	469	25.0	

E3623 Series



Outline Dimensions

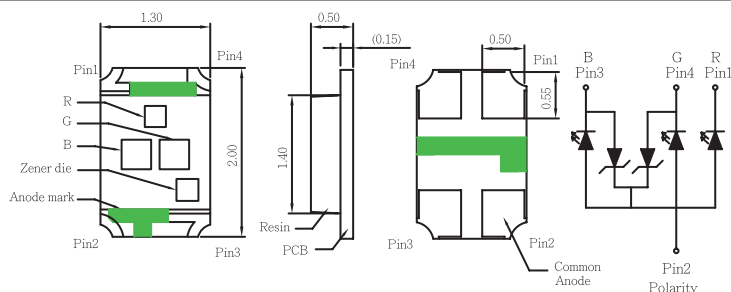


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
E3623RGB	1.6 * 1.5 * 0.5	● Red	1.60	2.40	621	100.0	10
		● Green	2.70	3.90	528	360.0	
		● Blue	2.70	3.90	468	65.0	

E3743 Series



Outline Dimensions

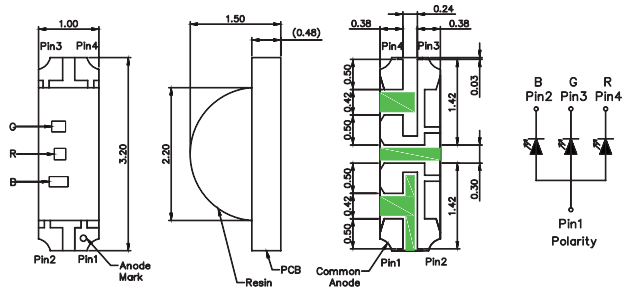


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
E3743FCH	2.0 * 1.3 * 0.5	● Red	1.60	2.40	624	112.5	20
		● Green	2.70	3.90	525	285.0	
		● Blue	2.70	3.90	470	71.5	

B31H3 Series



Outline Dimensions

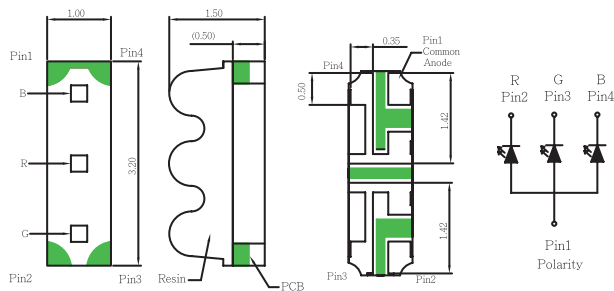


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B31H3BGR	3.2 * 1.5 * 1.0	● Red	1.80	2.40	622	540.0	20
		● Green	2.60	3.40	523	900.0	
		● Blue	2.60	3.40	465	210.0	

B31G3 Series



Outline Dimensions

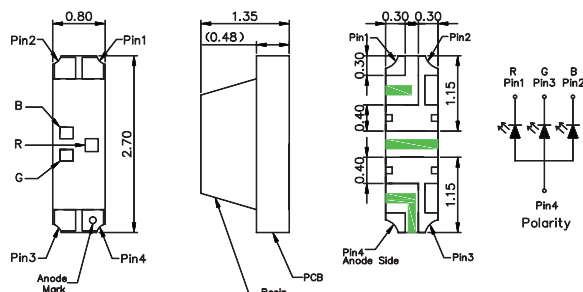


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B31G3BGR	3.2 * 1.5 * 1.0	● Red	1.80	2.40	625	950.0	20
		● Green	2.60	3.40	522	1500.0	
		● Blue	2.60	3.40	468	330.0	

B3233 Series



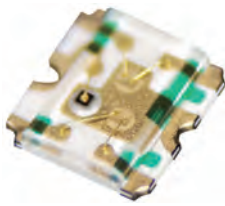
Outline Dimensions



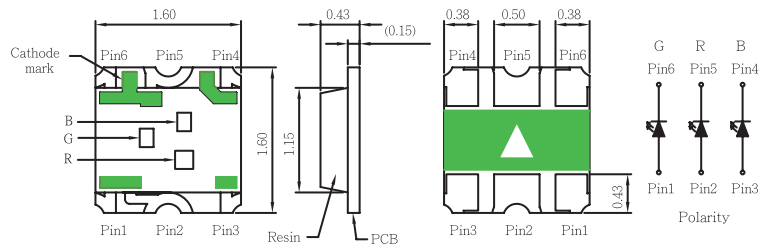
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3233GBR	2.7 * 1.35 * 0.8	● Red	1.60	2.40	624	36.0	5
		● Green	2.50	3.20	529	127.0	
		● Blue	2.50	3.20	472	36.0	



B3813 Series

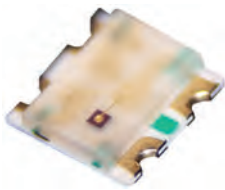


Outline Dimensions

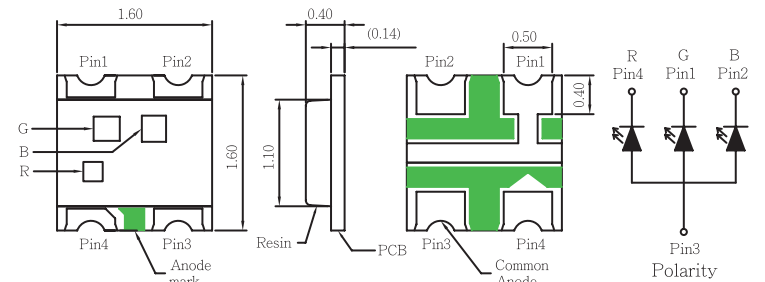


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3813BRG	1.6 * 1.6 * 0.43	○ White	1.60	4.00	X=0.307 Y=0.340	180.0	R:4.8 G:3.1 B:2.0

B38G3 Series



Outline Dimensions

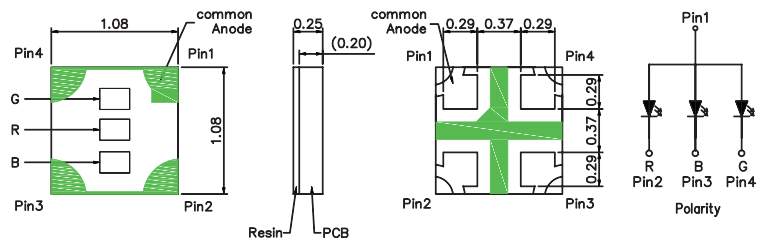


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B38G3RGB	1.6 * 1.6 * 0.4	○ White	1.70	3.45	X=0.220 Y=0.250	560.0	10

B3C73 Series



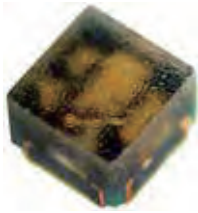
Outline Dimensions



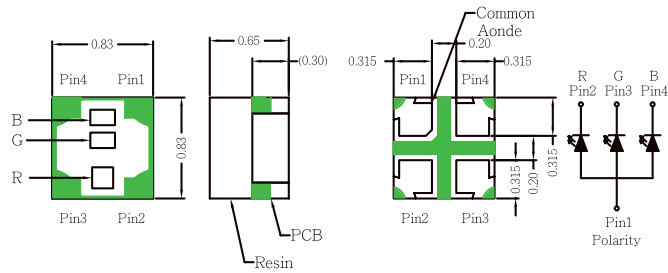
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3C73RBG	1.0 * 1.0 * 0.25	○ White	1.60	2.95	X=0.270 Y=0.315	95.0	R:0.9 G:2.0 B:0.65

Common Anode

B39P3 Series



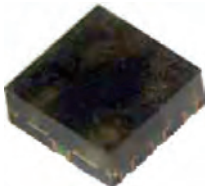
Outline Dimensions



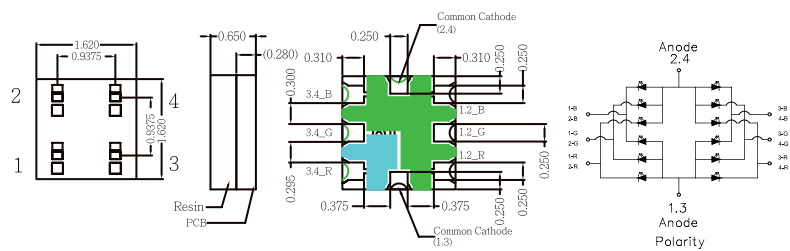
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B39P3RGB	0.83*0.83* 0.65	● Red	1.60	2.40	621	26.0	5
		● Green	2.10	3.10	531	37.0	2
		● Blue	2.10	3.10	470	7.5	2

Common Cathode

B33NB Series



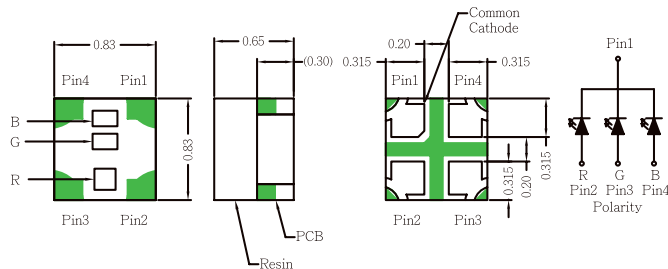
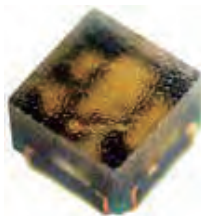
Outline Dimensions



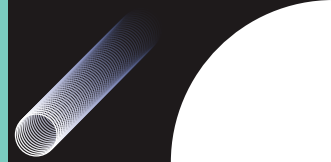
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B33NBFCH	1.62*1.62* 0.65	● Red	1.60	2.40	621	14.0	5
		● Green	2.20	3.00	532	19.0	2
		● Blue	2.20	3.00	469	2.5	2

B39D3 Series

Outline Dimensions

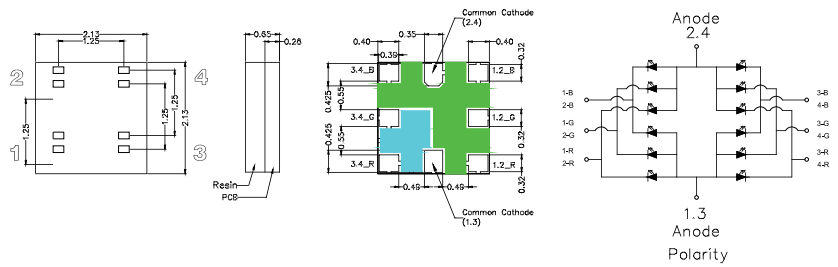
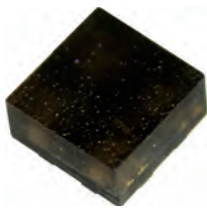


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B39D3RGB	0.83*0.83*0.65	● Red	1.60	2.40	621	26.0	5
		● Green	2.10	3.10	531	37.0	2
		● Blue	2.10	3.10	470	7.5	2



B3GDB Series

Outline Dimensions

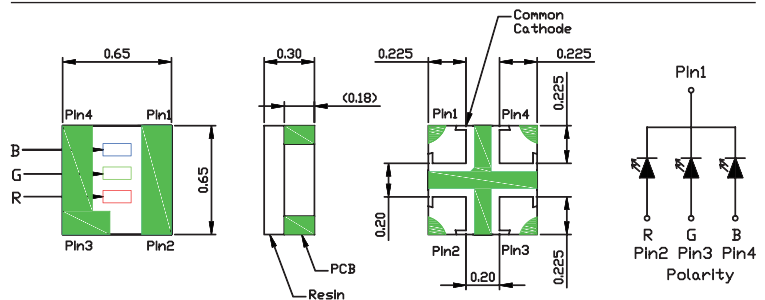
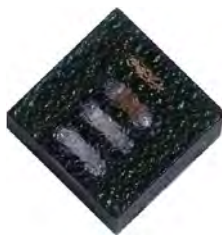


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3GDBFCH	2.13*2.13*0.65	● Red	2.00	2.40	621	13.0	5
		● Green	2.50	3.00	531	18.0	2
		● Blue	2.60	3.00	468	2.5	2

Flip chip

B3VC3 Series

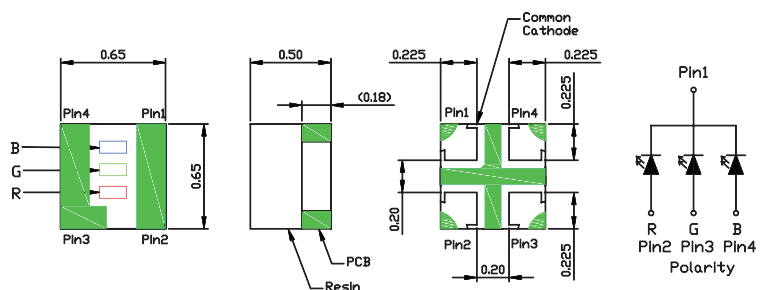
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3VC3RGB	0.65*0.65*0.3	● Red	1.60	2.40	621	21.0	1
		● Green	2.10	3.10	532	54.0	1
		● Blue	2.10	3.10	465	12.0	1

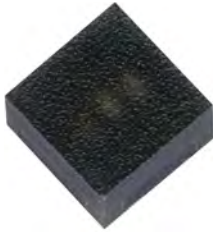
B3VF3 Series

Outline Dimensions

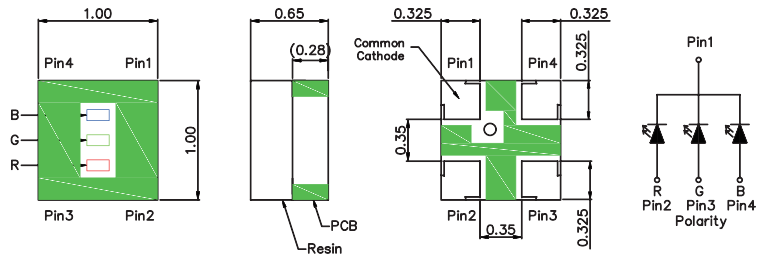


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3VF3RGB	0.65*0.65*0.5	● Red	2.20	3.00	621	76.0	5
		● Green	2.10	3.10	528	62.0	2
		● Blue	2.10	3.10	465	12.0	2

B3R43 Series

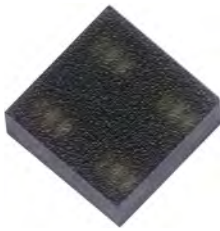


Outline Dimensions

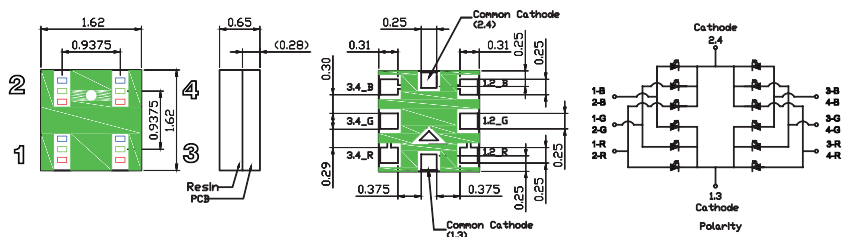


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3R43RGB	1.0 * 1.0 * 0.65	● Red	1.80	2.30	620	28.0	2
		● Green	2.40	3.00	529	63.0	2
		● Blue	2.50	3.10	466	12.0	2

B3G0B Series



Outline Dimensions

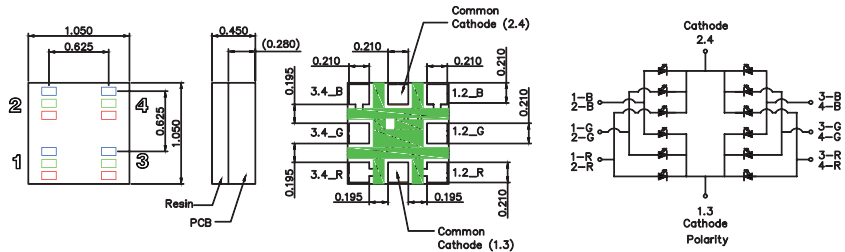


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3G0BFCH	1.62*1.62*0.65	● Red	1.60	2.40	621	70.0	5
		● Green	2.10	3.10	528	66.0	2
		● Blue	2.10	3.10	467	12.0	2

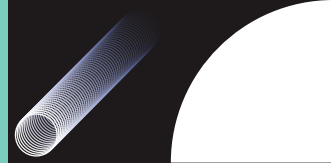
B33TB Series



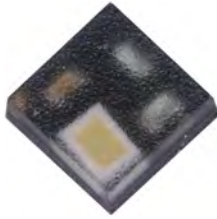
Outline Dimensions



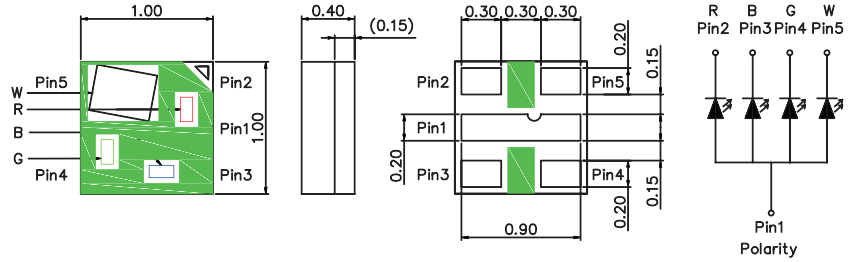
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B33TBFCH	1.05*1.05*0.45	● Red	1.80	2.60	620	50.0	5
		● Green	2.20	3.20	531	42.0	2
		● Blue	2.20	3.20	467	7.8	2



B3R14 Series



Outline Dimensions

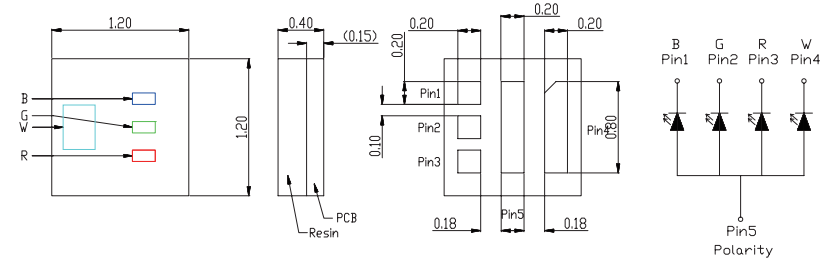


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3R14RGBW	1.0 * 1.0 * 0.4	● Red	1.60	2.40	622	115.0	5
		● Green	2.20	3.20	524	280.0	5
		● Blue	2.40	3.40	465	64.0	5
		○ White	2.40	3.40	465	64.0	5

B3N04 Series



Outline Dimensions

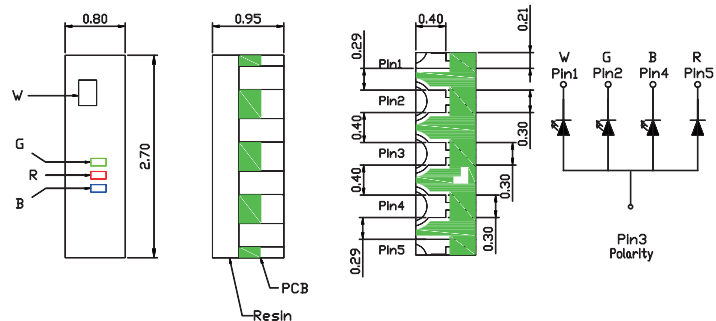


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B3N04BGRW	1.2 * 1.2 * 0.4	● Red	1.60	2.40	622	150.0	5
		● Green	2.40	3.20	525	500.0	5
		● Blue	2.40	3.20	470	95.0	5
		○ White	2.20	3.20	0.33 , 0.33	360.0	5

B32A4 Series

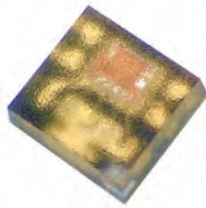


Outline Dimensions

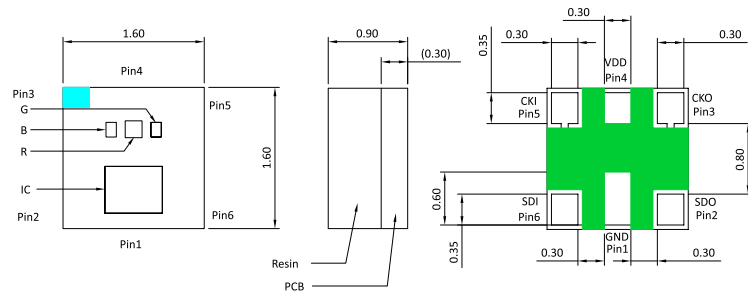


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
B32A4BGRW	2.7 * 0.95 * 0.8	● Red	1.90	2.40	622	150.0	5
		● Green	2.80	3.40	525	400.0	5
		● Blue	2.80	3.40	466	100.0	5
		○ White	2.90	3.20	0.31 , 0.33	400.0	5

B3DB3 Series

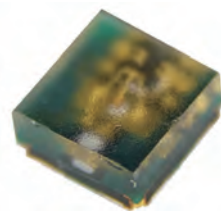


Outline Dimensions

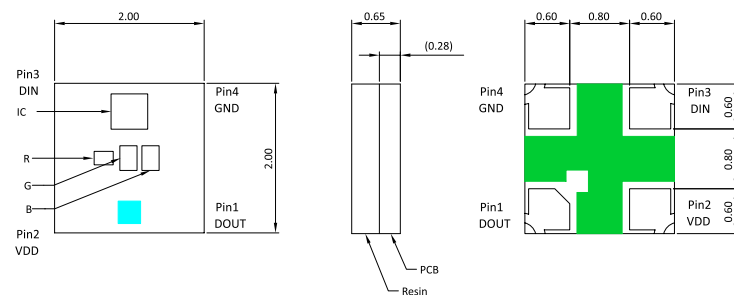


Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_F (mA)
			Typ.	Typ.	
B3DB3BRG	1.6 * 1.6 * 0.9	● Blue	467	75.0	5
		● Red	622	230.0	
		● Green	528	255.0	

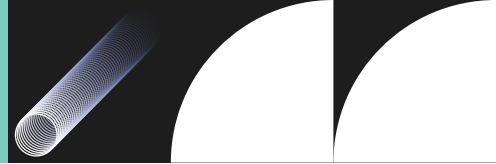
B3DK3 Series



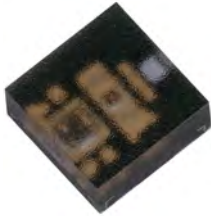
Outline Dimensions



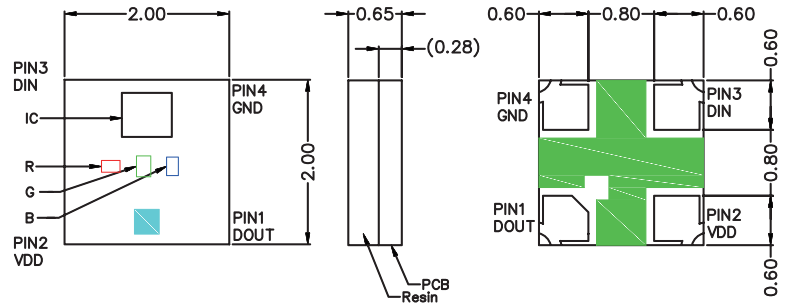
Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_F (mA)
			Typ.	Typ.	
B3DK3BRG	2.0 * 2.0 * 0.9	● Blue	468	42.0	5
		● Red	623	105.0	
		● Green	525	165.0	



B3W13 Series

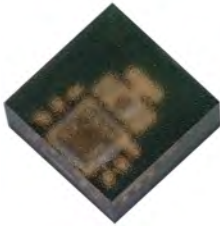


Outline Dimensions

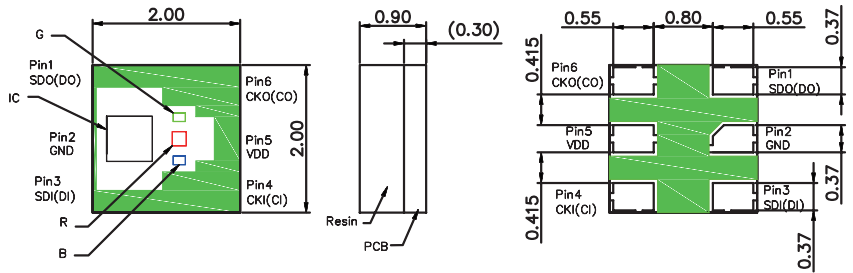


Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_f (mA)
			Typ.	Typ.	
B3W13GRB	2.0 * 2.0 * 0.9	● Green	527	150.0	5
		● Red	621	75.0	
		● Blue	465	25.0	

B3WB3 Series

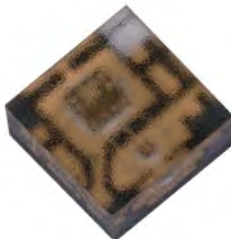


Outline Dimensions

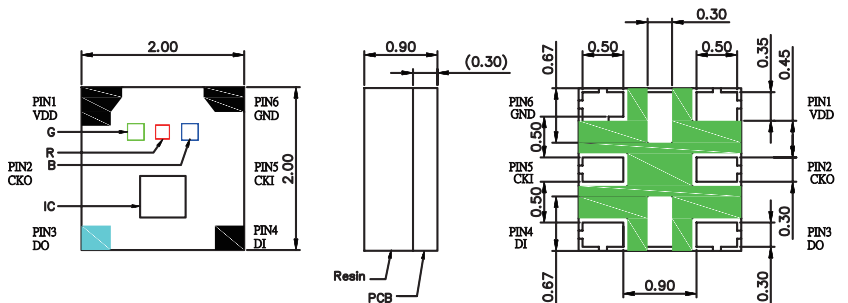


Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_f (mA)
			Typ.	Typ.	
B3WB3BGR	2.0 * 2.0 * 0.9	● Blue	466	120.0	20
		● Green	525	675.0	
		● Red	620	400.0	

B3DC3 Series

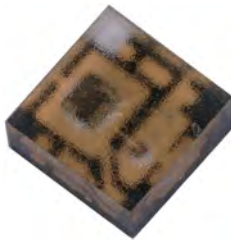


Outline Dimensions

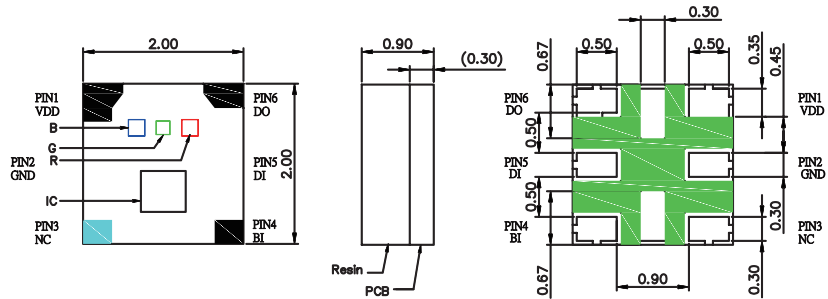


Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_f (mA)
			Typ.	Typ.	
B3DC3BGR	2.0 * 2.0 * 0.9	● Blue	466	215.0	20
		● Green	525	675.0	
		● Red	620	450.0	

B3DJ3 Series

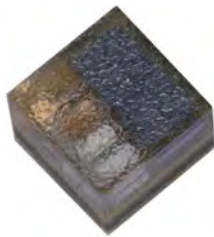


Outline Dimensions

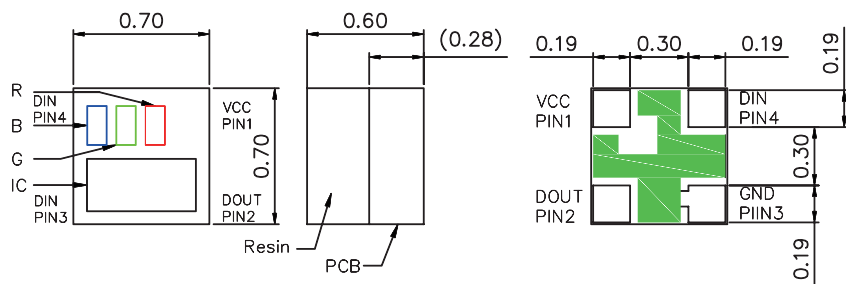


Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_f (mA)
			Typ.	Typ.	
B3DJ3RGB	2.0 * 2.0 * 0.9	● Red	624	80.0	5
		● Green	526.5	120.0	
		● Blue	466	37.5	

B3DV3 Series



Outline Dimensions

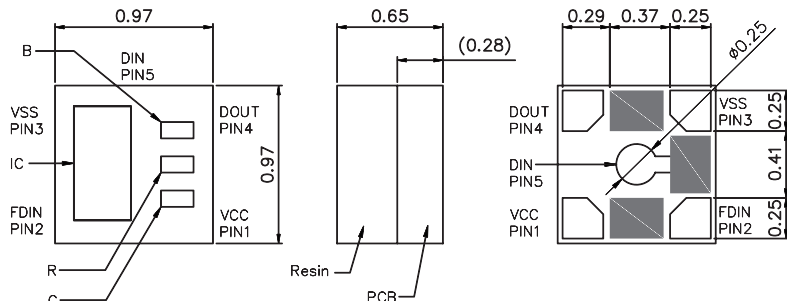


Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_f (mA)
			Typ.	Typ.	
B3DV3RGB	0.7 * 0.7 * 0.6	● Red	617	6.6	0.375
		● Green	532	20.4	
		● Blue	467	3.5	

B3D13 Series



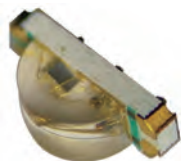
Outline Dimensions



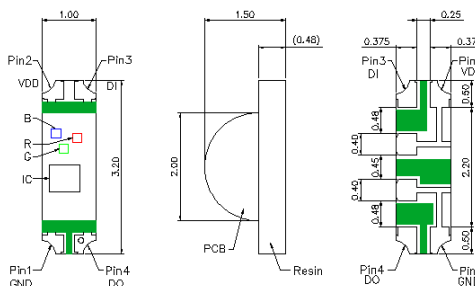
Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_f (mA)
			Typ.	Typ.	
B3D13RGB	0.97*0.97*0.65	● Red	617	8.5	2
		● Green	537	40.0	
		● Blue	468	7.0	



B3DQ3 Series



Outline Dimensions

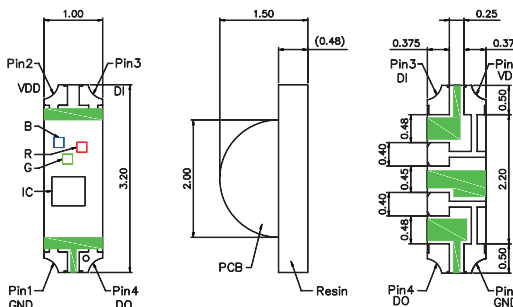


Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_F (mA)
			Typ.	Typ.	
B3DQ3BRG	3.2 * 1.0 * 1.5	● Blue	468	20.0	5
		● Red	624	65.0	
		● Green	523	85.0	

B3WC3 Series



Outline Dimensions

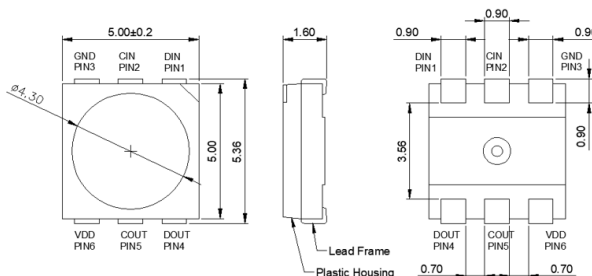


Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_F (mA)
			Typ.	Typ.	
B3WC3GRB	3.2 * 1.0 * 1.5	● Green	523	178.0	5
		● Red	620	113.0	
		● Blue	468	28.0	

T3A33 Series



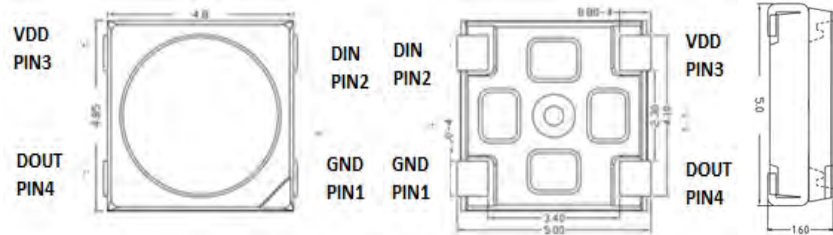
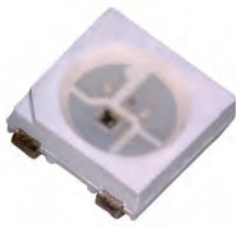
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_F (mA)
			Typ.	Typ.	
T3A33BRG	5.0 * 5.3 * 1.6	● Blue	470	400	20
		● Red	624	800	
		● Green	523	1800	

T3A53 Series

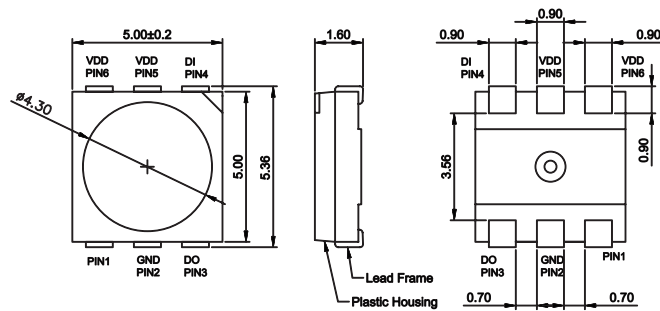
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_F (mA)
			Typ.	Typ.	
T3A53BRG	5.0 * 4.85 * 1.6	● Blue	468	370	20
		● Red	623	920	
		● Green	525	1463	

T3AG3 Series

Outline Dimensions

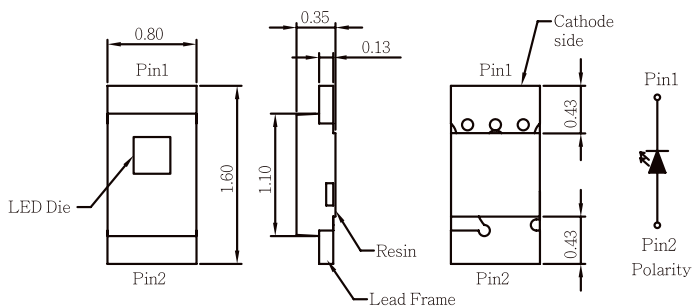
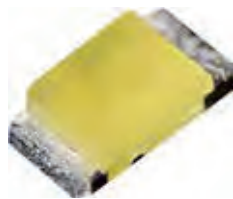


Part Number	Size (mm) L * W * H	Emitting Color	λ_D (nm)	Luminous Intensity (mcd)	I_F (mA)
			Typ.	Typ.	
T3AG3RGB	5.0 * 5.3 * 1.6	● Blue	467	232	20
		● Red	623	630	
		● Green	527	1180	



F1961 Series

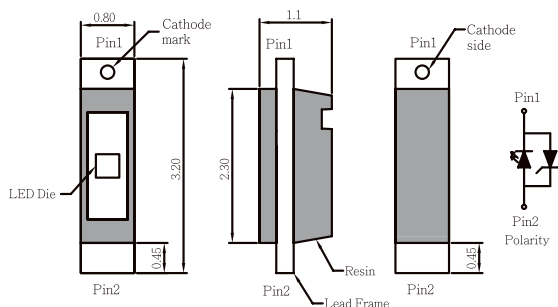
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
F1961UYG	1.6 * 0.8 * 0.35	● Yellow Green	2.1	571	71.5	20
F1961TX		○ White	3.3	x=0.290 y=0.285	1700.0	
F1961TX		○ White	2.9	x=0.290 y=0.285	230.0	5

V1181 Series

Outline Dimensions

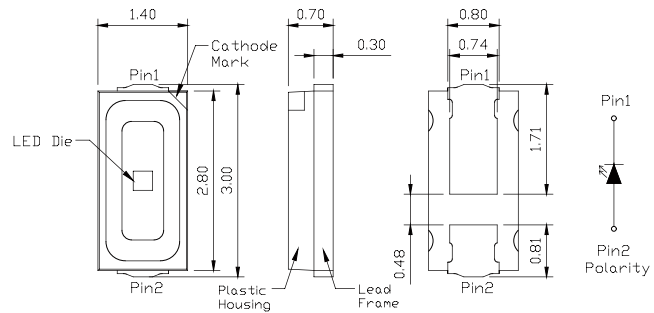


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
V1181TX	3.2 * 1.1 * 0.8	○ White	3.3	x=0.310 y=0.310	1500.0	20

T1341 Series



Outline Dimensions

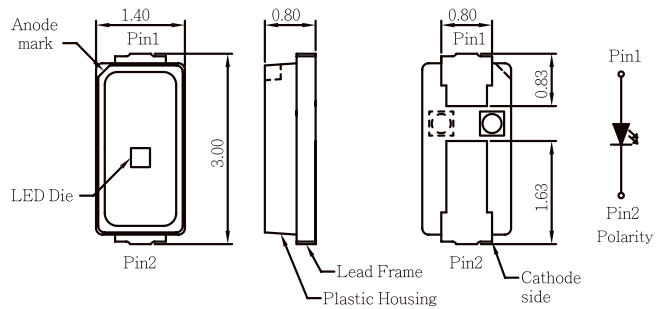


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T1341USD	3.0 * 1.4 * 0.70	● Red	2.1	630	1800.0	30

T1361 Series



Outline Dimensions

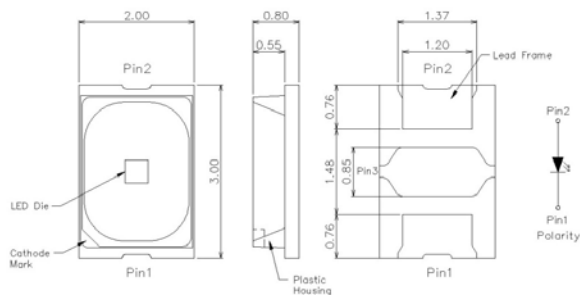


Part Number	Size (mm) L * W * H	Emitting Color	CRI	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
				Typ.		Typ.	
T1361DND	3.0 * 1.4 * 0.8	○ White	> 80	3.20	6000	8.3	20
		○ Neutral White	> 80	3.20	4000	8.3	
		○ Warm White	> 80	3.20	3000	8.0	

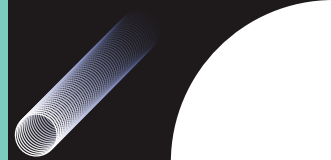
T1551 Series



Outline Dimensions

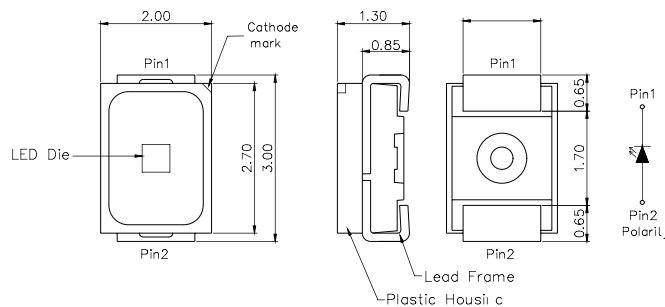


Part Number	Size (mm) L * W * H	Emitting Color	CRI	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
				Typ.		Typ.	
T1551DND	3.0 * 2.0 * 0.8	○ White	> 80	3.20	6000	23.0	60
		○ Neutral White	> 80	3.20	4000	23.0	
		○ Warm White	> 80	3.20	3000	23.0	



T15B1 Series

Outline Dimensions

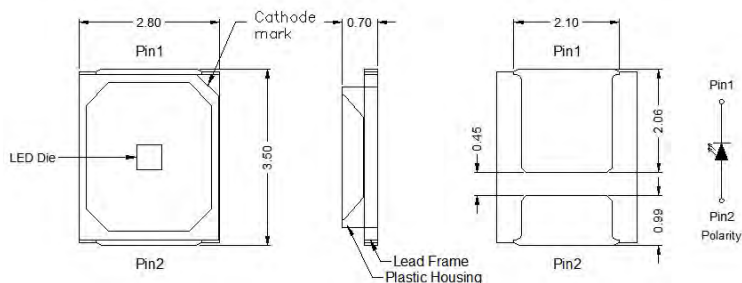


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T15B1NG	3.0 * 2.0 * 1.3	● Green	2.8	525	2850.0	20
T15B1USD		● Red	2.0	630	180.0	
T15B1UY		● Yellow	2.0	587	285.0	
T15B1UYG		● Yellow Green	2.1	571	71.0	

Part Number	Size (mm) L * W * H	Emitting Color	CRI	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
				Typ.		Typ.	
T15B1DND	3.0 * 2.0 * 1.3	○ Cold White	> 80	3.20	6000	2800.0	20
		○ Neutral White	> 80	3.20	4000	2800.0	

T1651 Series

Outline Dimensions

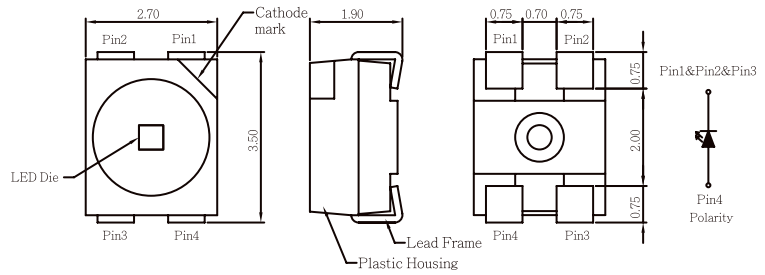


Part Number	Size (mm) L * W * H	Emitting Color	CRI	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
				Typ.		Typ.	
T1651DND	3.5*2.8*0.75	○ Cold White	> 80	3.10	6000	27.0	60
		○ Neutral White	> 80	3.10	4000	27.0	
		○ Warm White	> 80	3.10	3000	25.0	

T1681 Series



Outline Dimensions



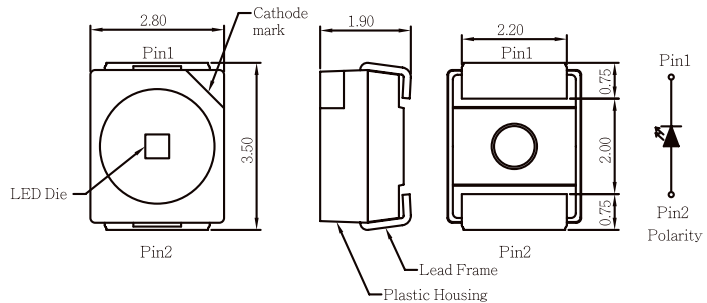
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T1681NB	3.5 * 2.7 * 1.9	Blue	3.3	465	800.0	20
T1681NG		Green	3.2	525	1800.0	
T1681USD		Red	2.0	623	1125.0	
T1681UY		Yellow	2.1	589	1125.0	

Part Number	Size (mm) L * W * H	Emitting Color	CRI	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
				Typ.		Typ.	
T1681TX	3.5 * 2.7 * 1.9	White	-	3.20	6000	2250.0	20

T1691 Series



Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T1691NB	3.5 * 2.8 * 1.9	Blue	3.3	465	450.0	20
T1691NG		Green	3.2	525	1500.0	
T1691UD		Orange	2.1	611	450.0	
T1691USD		Red	2.0	623	1125.0	
T1691UY		Yellow	2.1	589	1100.0	
T1691UYG		Yellow Green	2.1	571	71.5	

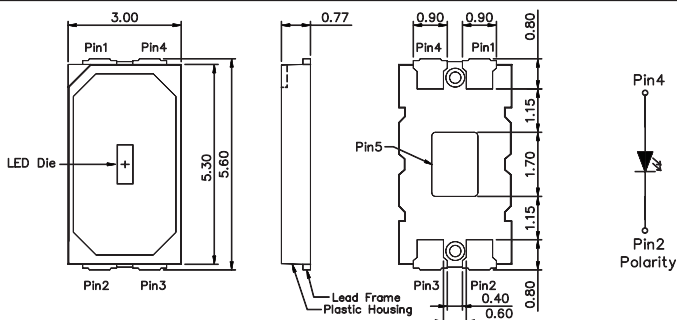
Part Number	Size (mm) L * W * H	Emitting Color	CRI	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
				Typ.		Typ.	
T1691TX	3.5 * 2.8 * 1.9	Cold White	-	3.20	6000	2385.0	20
		Neutral White	-	3.20	4000	2385.0	



T53M1 Series



Outline Dimensions

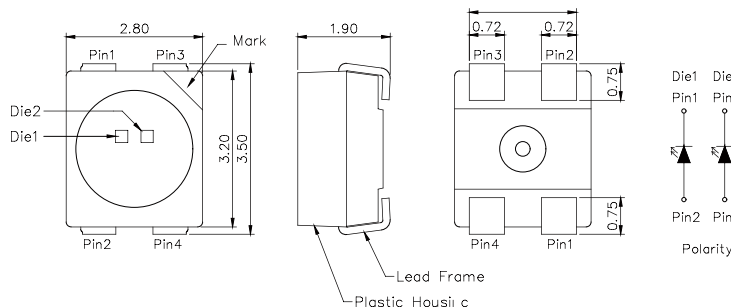


Part Number	Size (mm) L * W * H	Emitting Color	CRI	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
				Typ.		Typ.	
T53M1DND	5.6*3.0*0.77	○ Neutral White	> 80	3.20	4000	55.0	150

T2662 Series



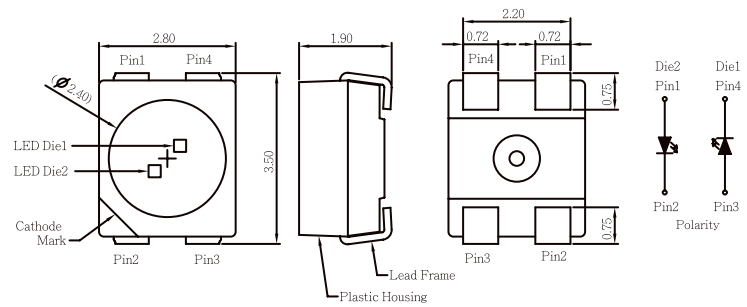
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T2662 Series	3.5 * 2.8 * 1.9	● Blue	3.20	467	360.0	20
		● Green	3.10	517	1900.0	
		● Red	2.10	630	1000.0	
		● Yellow	2.10	594	1000.0	
		● Yellow Green	2.00	571	100.0	

T2682 Series

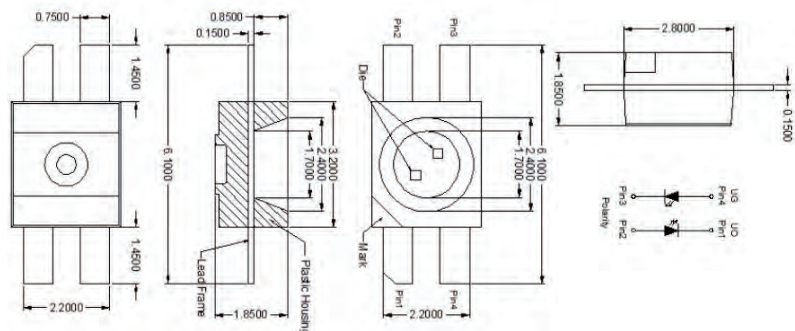
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T2682 Series	3.5 * 2.8 * 1.9	Blue	3.20	467	600.0	20
		Green	3.10	517	1800.0	
		Orange	2.10	605	430.0	
		Red	2.10	630	400.0	
		Yellow	2.10	594	1000.0	

T36L2 Series

Outline Dimensions

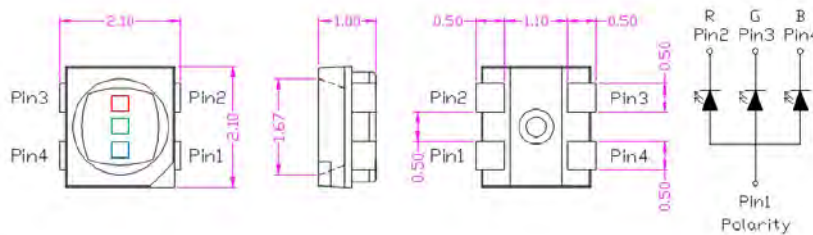


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T36L2 Series	6.1 * 2.8 * 1.85	Red	2.10	630	14.0	2
		Green	2.00	571	7.0	



T2133 Series

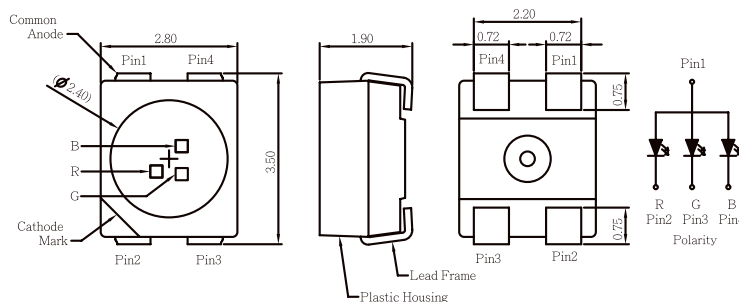
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T2133BGR	2.1 * 2.1 * 1.0	Blue	2.70	470	360.0	20
		Green	2.70	525	2200.0	
		Red	2.00	620	900.0	

T3683 Series

Outline Dimensions

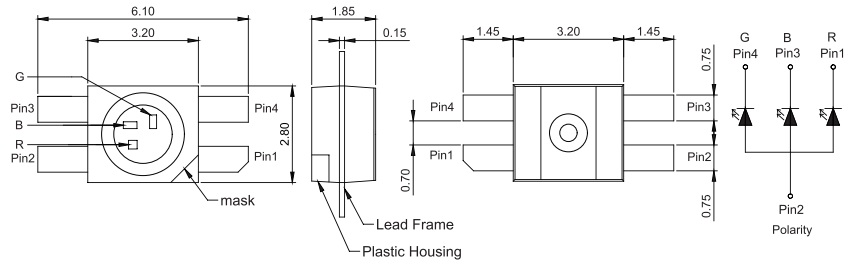


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T3683 Series	3.5 * 2.8 * 1.9	Red	2.10	630	1000.0	20
		Green	3.10	527	1300.0	
		Blue	3.10	460	300.0	

T36K3 Series

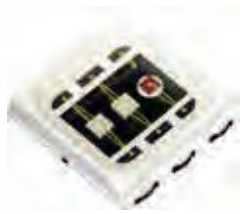


Outline Dimensions

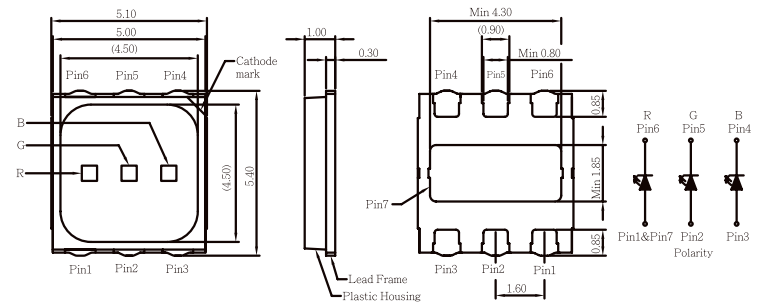


Part Number	Size (mm) L * W * H	Emitting Color	CRI	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
				Typ.		Typ.	
T36K3BGR	6.1*2.8*1.85	3.5 * 2.8 * 1.9	1.60	3.00	X=0.227 Y=0.309	1050.0	5

T3A73 Series



Outline Dimensions

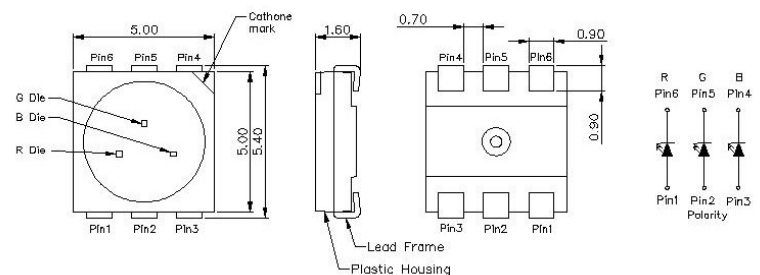


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T3A73BGR	5.4 * 5.1 * 1.0	● Red	2.10	624	23.0	150
		● Green	3.20	525	25.0	
		● Blue	3.20	467	9.0	

T3A83 Series



Outline Dimensions

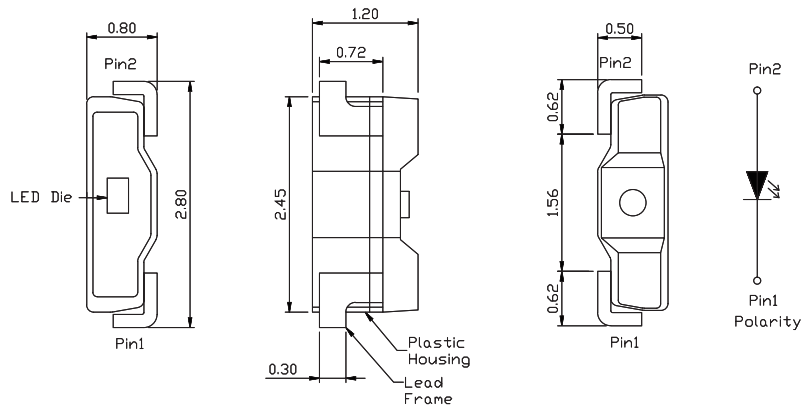


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ_D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
T3A83RGB	5.4 * 5.0 * 1.6	● Red	2.10	624	1125.0	20
		● Green	3.10	525	2800.0	
		● Blue	3.10	467	500.0	



F10V1 Series

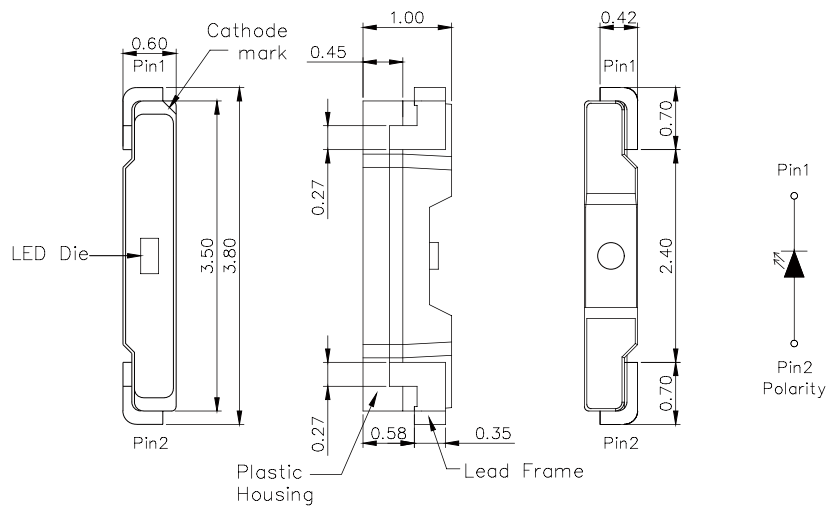
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
F10V1NG	2.8 * 0.8 * 1.2	● Green	3.10	517	1300.0	20
F10V1NB		● Blue	3.10	464	450.0	

F10Q1 Series

Outline Dimensions

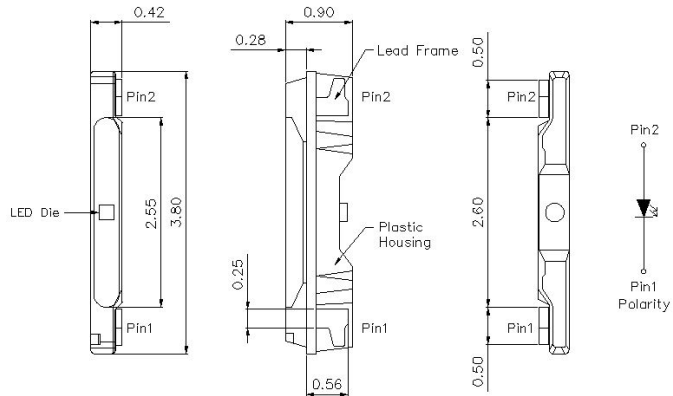


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
F10Q1FH	3.8 * 0.6 * 1.0	○ White	3.20	x=0.313 y=0.315	3400.0	20

F10S1 Series



Outline Dimensions

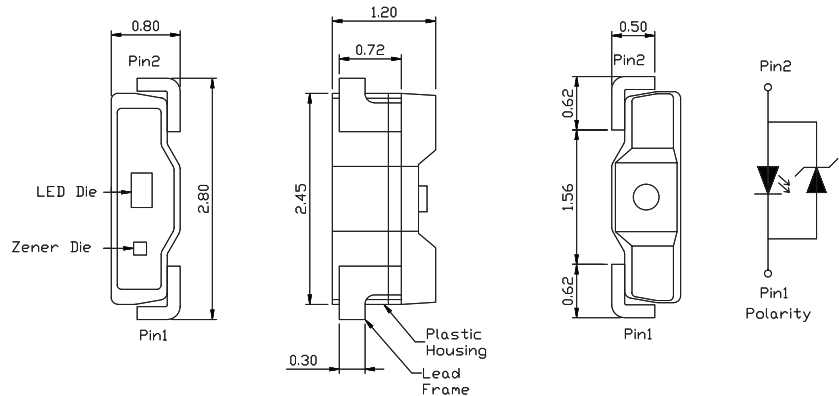


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
F10S1FL	3.8 * 0.42 * 0.9	○ White	3.20	x=0.270 y=0.30250	2125.0	20

V10V1 Series



Outline Dimensions

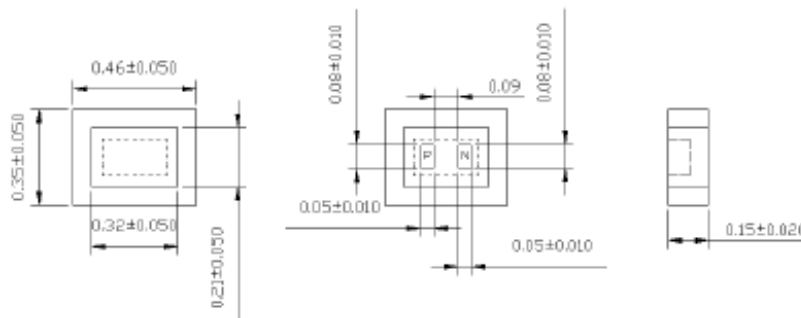
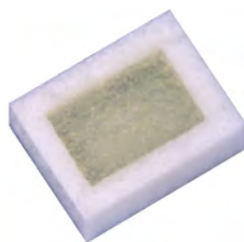


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)	λ _p (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Typ.		Typ.	
V10V1TX	2.8 * 0.8 * 1.2	○ White	3.20	x=0.285 y=0.270	1800.0	20



S5401 Series

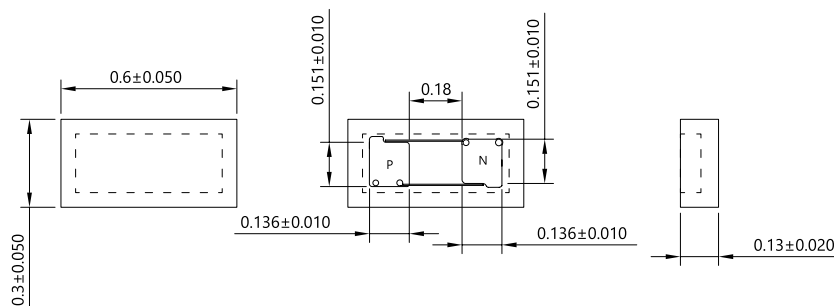
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
S5401CA	0.46*0.35*0.15	○ White	2.80	3.20	x=0.340 y=0.350	360.0	5

S6301 Series

Outline Dimensions

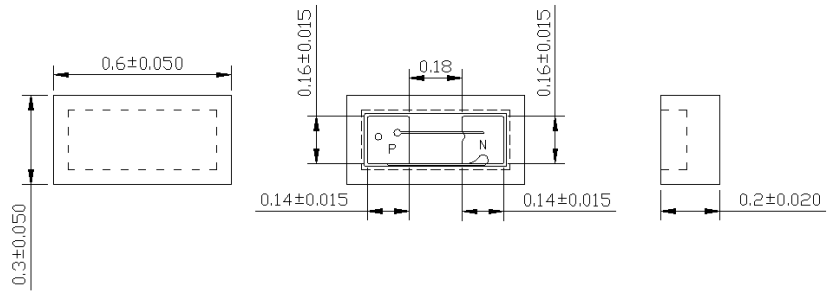


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
S6301CB	0.6 * 0.3 * 0.13	○ White	2.40	2.80	x=0.270 y=0.243	53.0	1

S6321 Series



Outline Dimensions

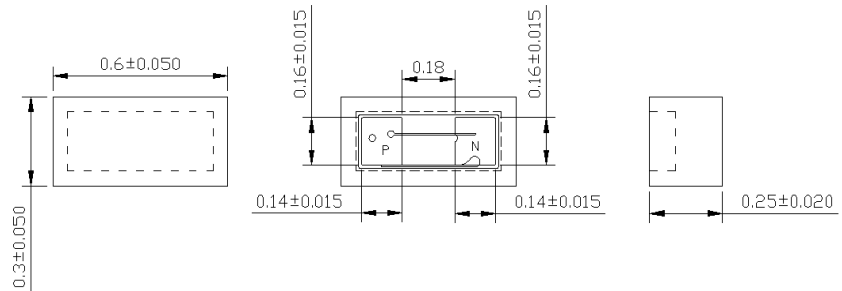


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
S6321CA		○ White	2.40	2.80	x=0.270 y=0.250	300.0	
S6321USD	0.6 * 0.3 * 0.2	● Red	1.70	2.10	623	107.5	5
S6321NG		● Green	2.30	2.60	527.5	338.5	
S6321NB		● Blue	2.40	2.80	469	75.0	

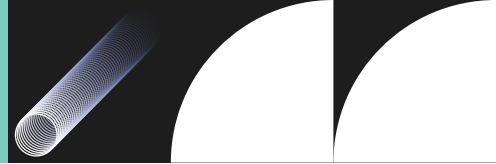
S6331 Series



Outline Dimensions

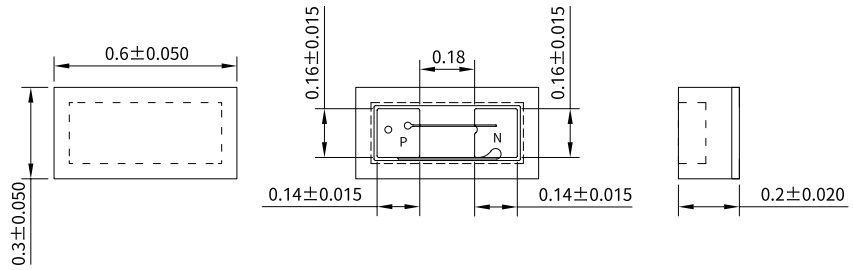


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Flux (lm)	I _F (mA)
			Min.	Max.		Typ.	
S6331WBC	0.6 * 0.3 * 0.25	○ White	2.60	3.00	x=0.395 y=0.386	7.2	20



S6341 Series

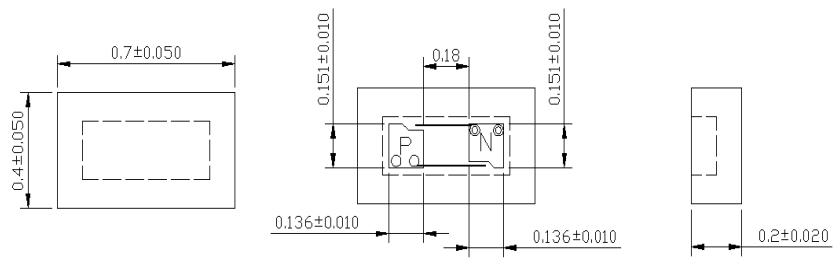
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Flux (lm)/ Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
S6341CA	0.6 * 0.3 * 0.2	○ White	2.50	2.90	x=0.270 y=0.250	1.6	5
S6341NB		● Blue	2.40	2.80	469	31.3	

S7421 Series

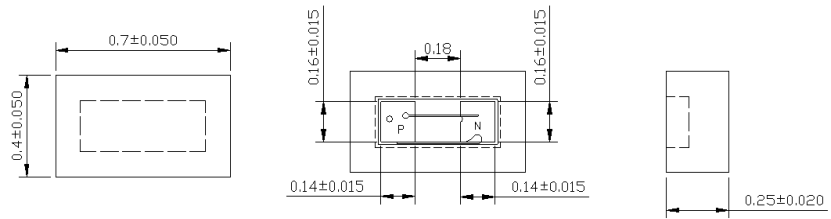
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
S7421NG	0.7 * 0.4 * 0.2	● Green	2.20	2.60	520	370.5	5

S7431 Series

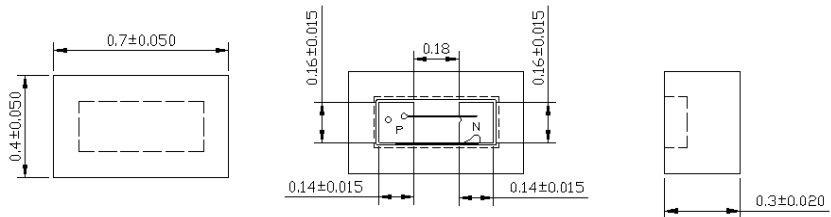
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	CRI	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Flux (lm)	I _F (mA)
				Min.	Max.		Typ.	
S7431WLE	0.7*0.4*0.25	● Warm White	>90	2.50	3.00	2800	1.66	5
		● Warm White	>90	2.50	3.00	3000	1.70	
		● Warm White	>90	2.50	3.00	3200	1.75	
S7431MLE		○ Neutral White	>90	2.50	3.00	4000	1.79	
		○ Neutral White	>90	2.50	3.00	4500	1.80	

S7451 Series

Outline Dimensions

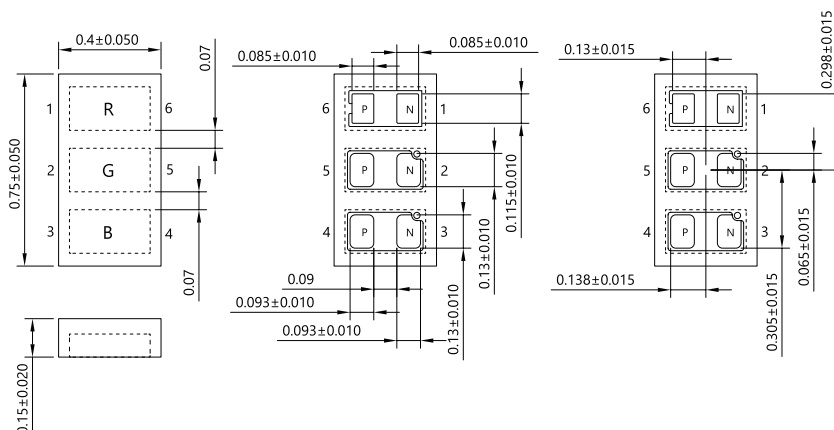


Part Number	Size (mm) L * W * H	Emitting Color	CRI	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Flux (lm)	I _F (mA)
				Min.	Max.		Typ.	
S7451WLE	0.7*0.4*0.3	● Warm White	>90	2.5	3.0	2200	1.43	5
		● Warm White	>90	2.5	3.0	2400	1.52	



S4803 Series

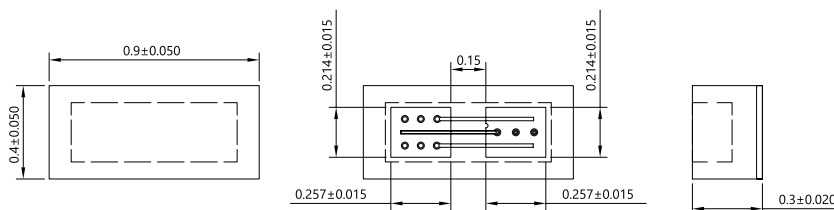
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
S4803RGB	0.4 * 0.75 * 0.15	● Red	1.50	2.40	623	41.5	1.7
		● Green	2.30	2.50	531	180.0	
		● Blue	2.10	3.10	469	35.0	

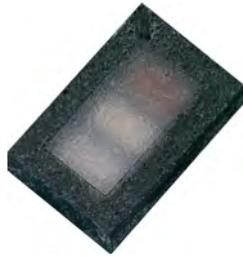
S9441 Series

Outline Dimensions

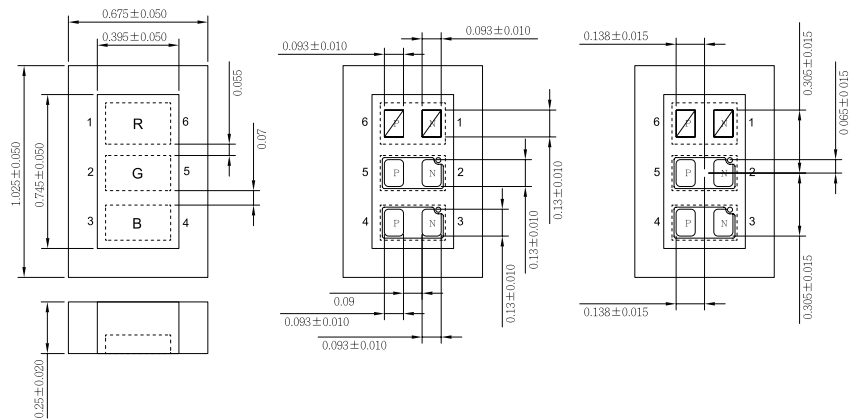


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Flux (lm)	I _F (mA)
			Min.	Max.		Typ.	
S9441CA	0.9 * 0.4 * 0.3	○ White	2.50	2.80	x=0.270 y=0.250	3.0	10

S7S03 Series

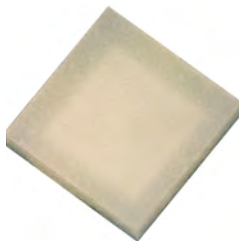


Outline Dimensions

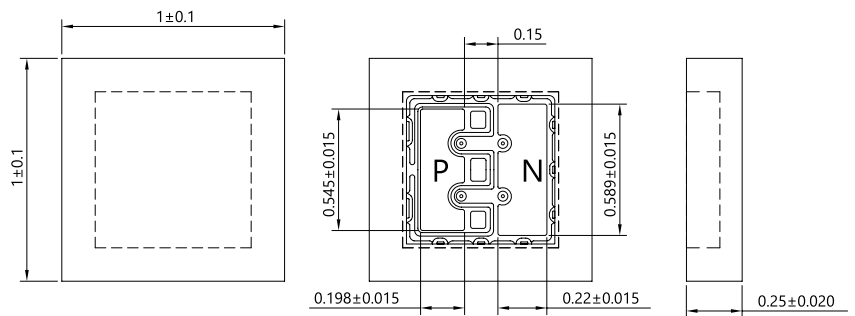


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Intensity (mcd)	I _F (mA)
			Min.	Max.		Typ.	
S7S03RGB	0.675*1.025*0.25	● Red	1.50	2.40	623	33.0	1.7
		● Green	2.30	2.50	531	90.0	
		● Blue	2.10	3.10	469	17.5	

S1011 Series



Outline Dimensions



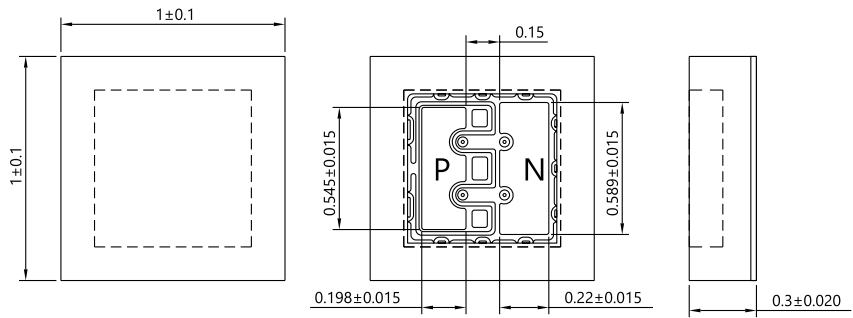
Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Flux (lm)	I _F (mA)
			Min.	Max.		Typ.	
S1011CA	1.0 * 1.0 * 0.25	○ White	2.50	2.80	x=0.270 y=0.250	10.0	25



S1021 Series

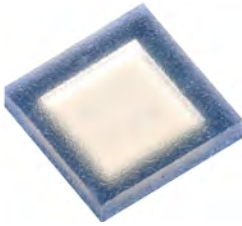


Outline Dimensions

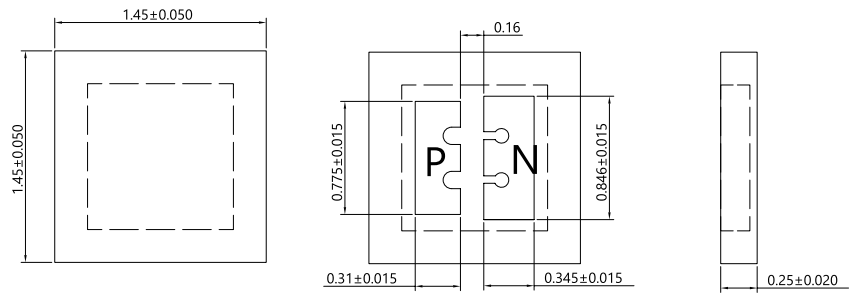


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Flux (lm)	I _F (mA)
			Min.	Max.		Typ.	
S1021CA	1.0 * 1.0 * 0.3	○ White	2.50	2.80	x=0.270 y=0.250	6.5	25

S1501 Series

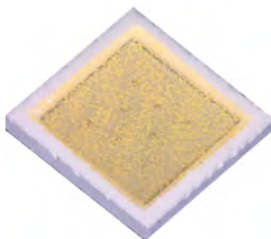


Outline Dimensions

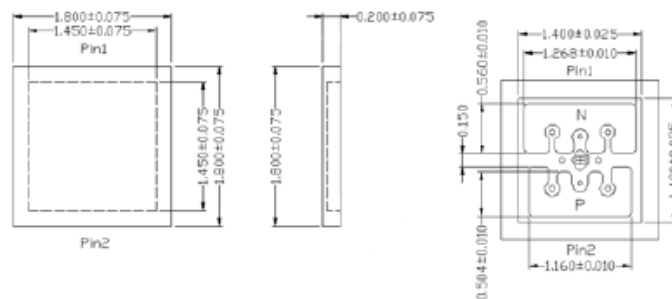


Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Flux (lm)	I _F (mA)
			Min.	Max.		Typ.	
S1501NG	1.45*1.45*0.25	● Green	2.80	3.40	525	255	700

X1801 Series



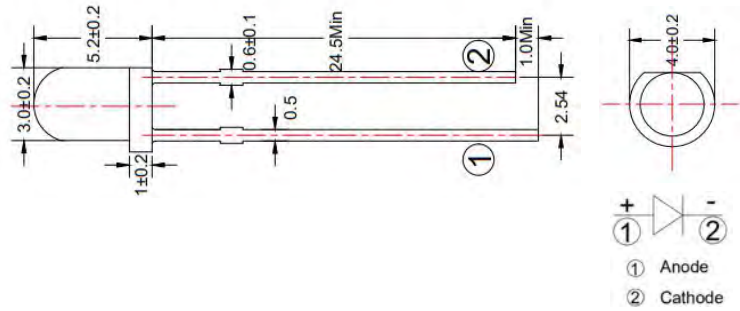
Outline Dimensions



Part Number	Size (mm) L * W * H	Emitting Color	Forward Voltage (V _F)		λ _D (nm) / CIE (x, y)	Luminous Flux (lm)	I _F (mA)
			Min.	Max.		Typ.	
X1801CG	1.8 * 1.8 * 0.2	○ White	3.30	3.70	x=0.259 y=0.222	475.0	1500

HV-46W2004C-H2.6

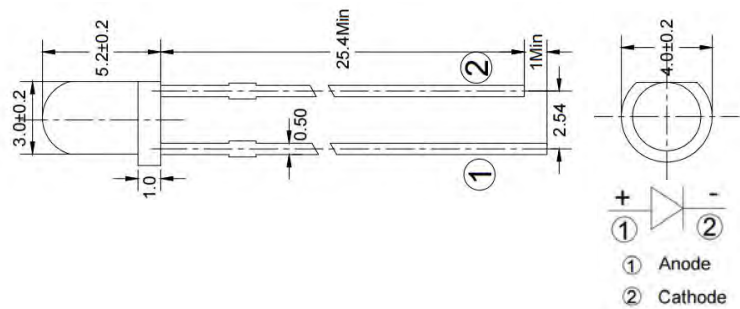
Outline Dimensions



Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		CIE (x, y)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-46W2004C-H2.6	3.0 Round LAMP	○ White	3.20	3.60	x=0.260 y=0.270	7150.0	10500.0	35	20

HV-47B2004D

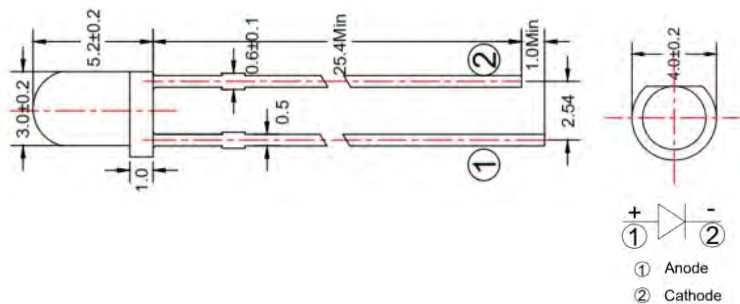
Outline Dimensions



Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-47B2004D	3.0 Round LAMP	● Blue	3.00	3.80	470	100.0	400.0	40	20

HV-52G2004C-L53

Outline Dimensions



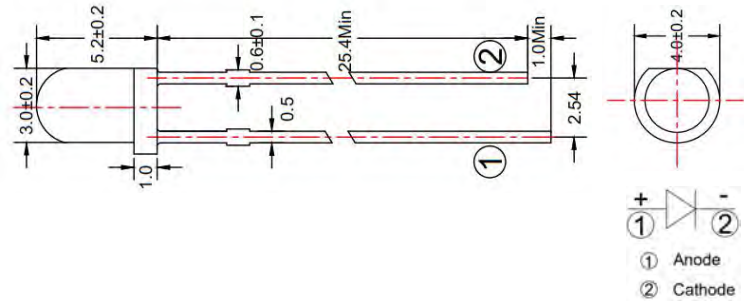
Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-52G2004C-L53	3.0 Round LAMP	● Green	3.00	3.50	520	4000.0	11000.0	30	20



HV-57G2004C



Outline Dimensions

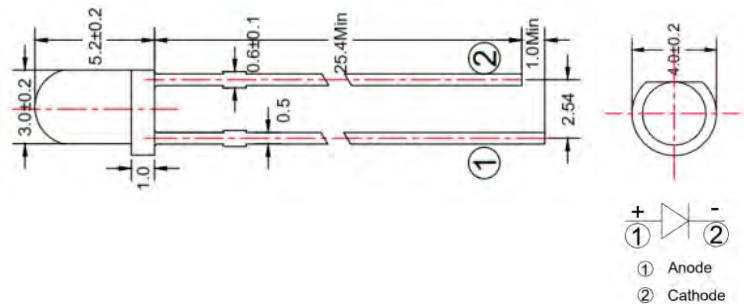


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-57G2004C	3.0 Round LAMP	● Green	2.00	2.60	572	100.0	450.0	30	20

HV-59Y2004C



Outline Dimensions

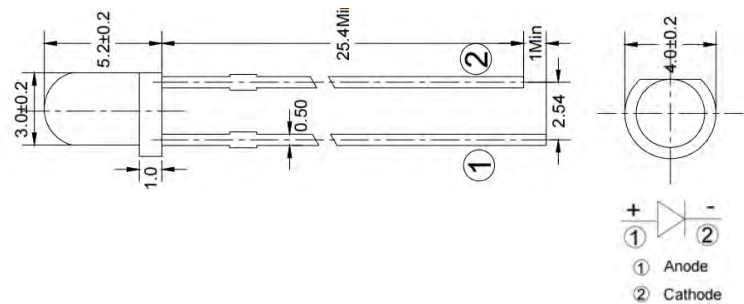


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-59Y2004C	3.0 Round LAMP	● Yellow	2.00	2.50	590	1500.0	4500.0	25	20

HV-62R2004D-L50



Outline Dimensions

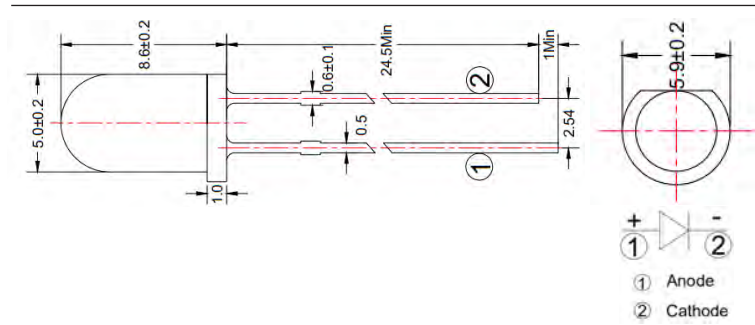


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-62R2004D-L50	3.0 Round LAMP	● Red	2.00	2.40	625	100.0	400.0	45	20

HV-46W3304C



Outline Dimensions

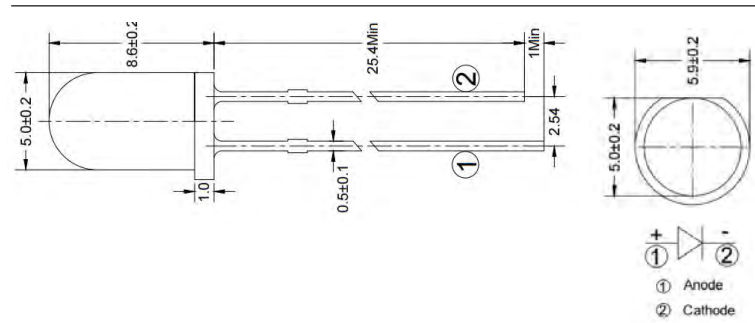


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		CIE (x, y)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-46W3304C	5.0 Round LAMP	○ White	3.00	3.40	x=0.260 y=0.270	2800.0	7100.0	50	20

HV-47B3304C



Outline Dimensions

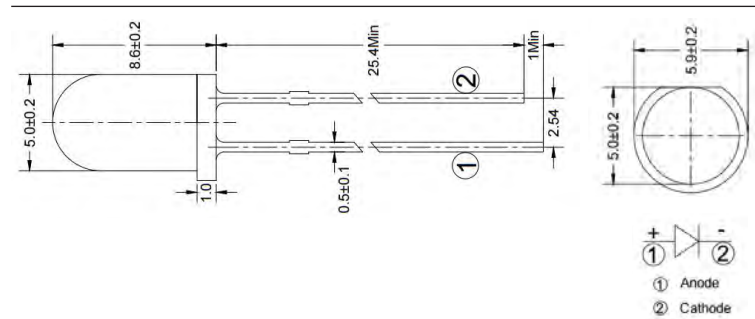


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-47B3304C	5.0 Round LAMP	● Blue	3.00	3.60	468	2500.0	6000.0	20	20

HV-52G3304C-L51



Outline Dimensions



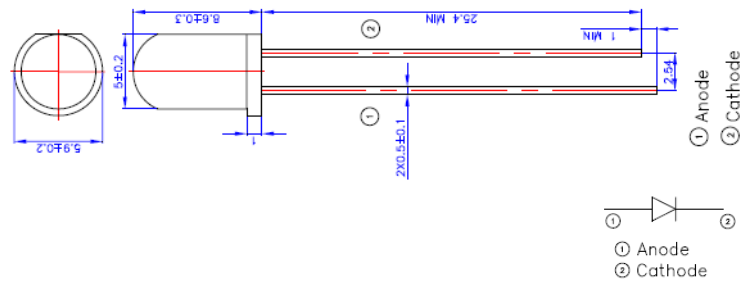
Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-52G3304C-L51	5.0 Round LAMP	● Green	3.00	3.60	522	10000.0	25000.0	20	20



HV-57G3304D



Outline Dimensions

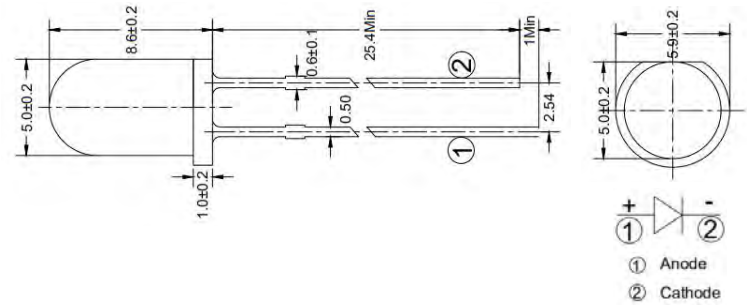


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-57G3304D	5.0 Round LAMP	● Green	2.00	2.50	571	15.0	60.0	50	20

HV-59Y3303C-L50



Outline Dimensions

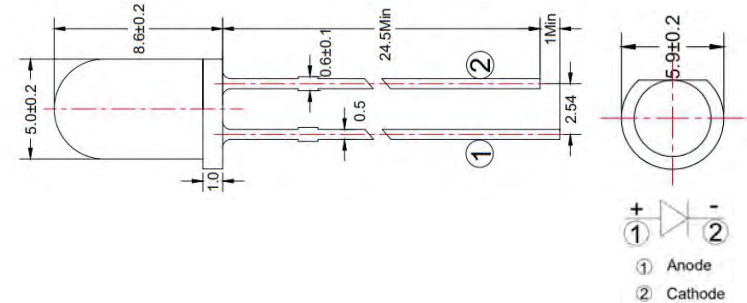


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-59Y3303C-L50	5.0 Round LAMP	● Yellow	2.00	2.50	588	630.0	3000.0	15	20

HV-62R3303C-L50



Outline Dimensions

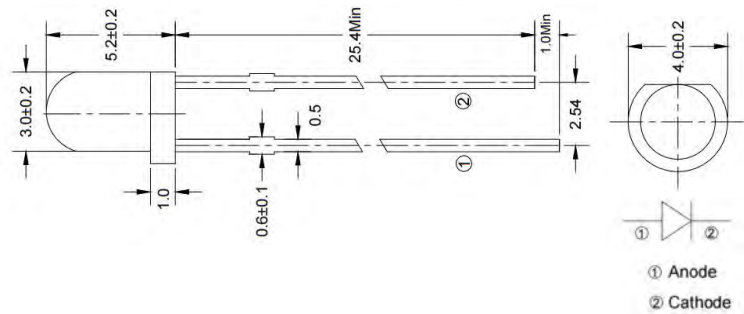


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-62R3303C-L50	5.0 Round LAMP	● Red	2.00	2.40	623	1000.0	2000.0	15	20

HV-46W2004W



Outline Dimensions

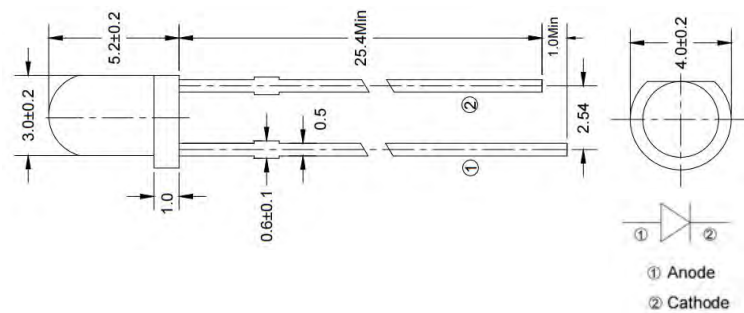


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		CIE (x, y)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-46W2004W	3.0 Round LAMP	○ White	3.00	3.50	x=0.280 y=0.290	1000.0	4000.0	55	20

HV-59Y2004C-L52



Outline Dimensions

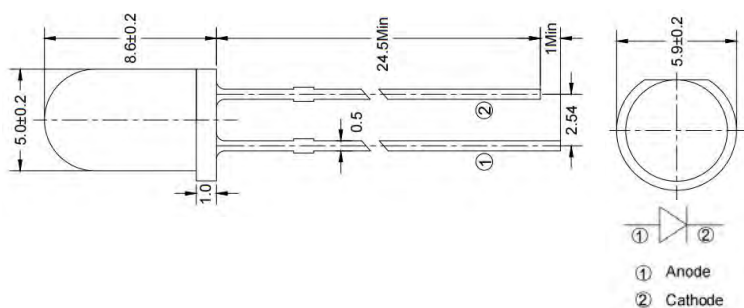


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-59Y2004C-L52	3.0 Round LAMP	● Yellow	2.00	2.60	590	25.0	80.0	40	20

HV-46W3304C-L53



Outline Dimensions



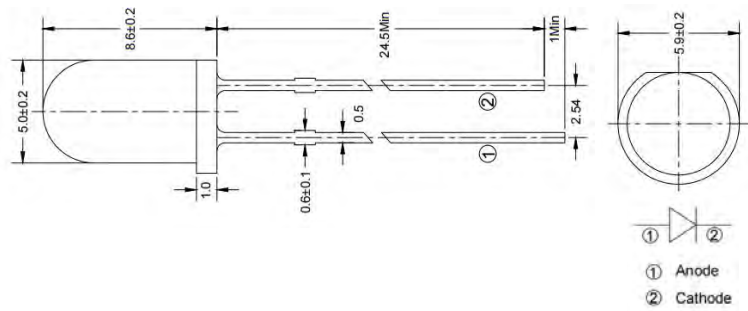
Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		CIE (x, y)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-46W3304C-L53	5.0 Round LAMP	○ White	3.20	3.60	x=0.310 y=0.320	10000.0	30000.0	15	20



HV-52G3304C-L56



Outline Dimensions

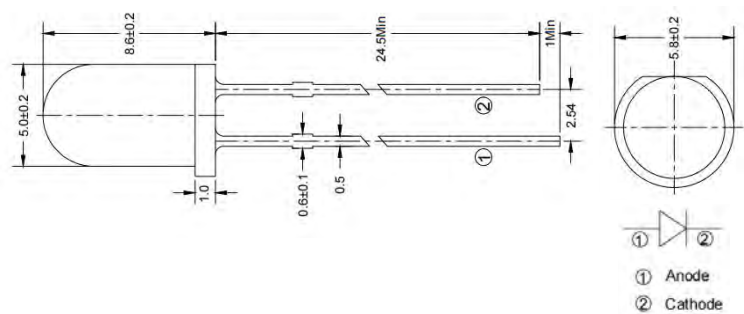


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-52G3304C-L56	5.0 Round LAMP	● Green	3.00	3.40	522	8500.0	25000.0	15	20

HV-47B3304M



Outline Dimensions

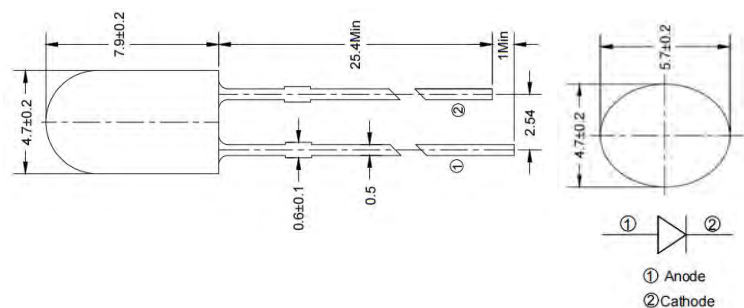


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-47B3304M	5.0 Round LAMP	● Blue	3.00	3.60	470	680.0	800.0	50	20

HV-59Y5063D-L50



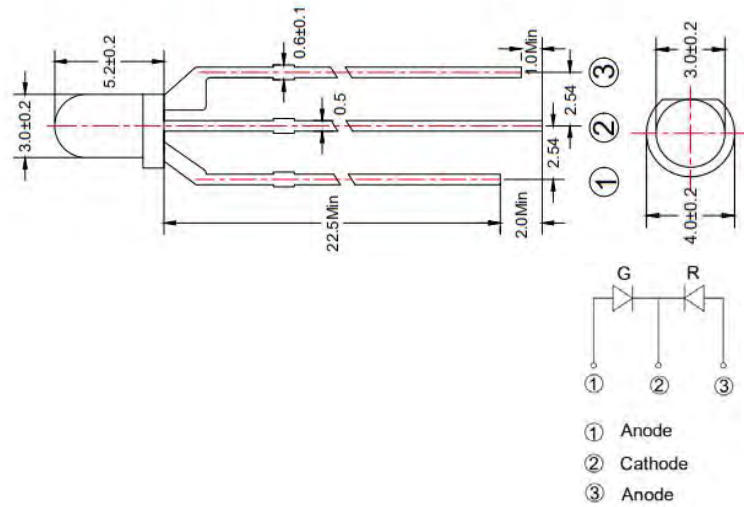
Outline Dimensions



Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-59Y5063D-L50	4.7*5.7mm Ellipse LAMP	● Yellow	2.00	2.50	590	60.0	150.0	X=60 Y=90	20

HV-RG22009M

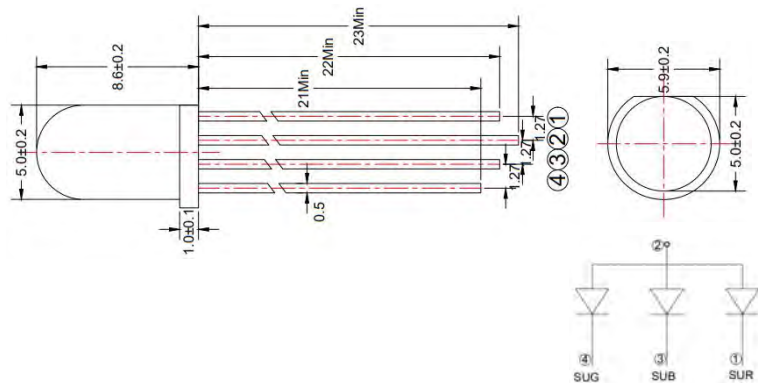
Outline Dimensions



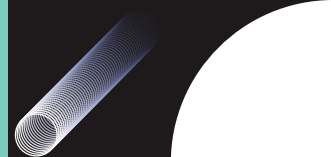
Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-RG22009M	3.0 Round LAMP	● Red	2.00	2.60	622	40.0	150.0	60	20
		● Green	2.00	2.60	571	20.0	40.0		

HV-RGB3309M-R2

Outline Dimensions

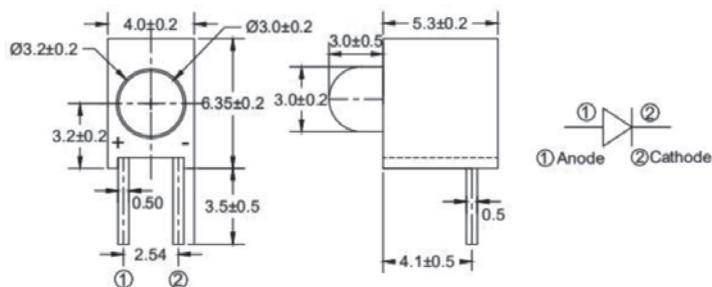


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-RGB3309M-R2	5.0 Round LAMP	● Red	2.00	2.60	622	200.0	800.0	60	20
		● Green	3.00	3.40	522	300.0	1000.0		
		● Blue	3.00	3.40	467	150.0	600.0		



HV-31210/230/SYG

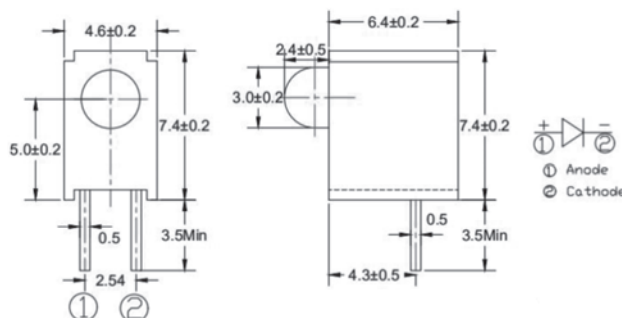
Outline Dimensions



Part Number	Size (mm)	Emitting Color	Forward Voltage (V_F)		λ_D (nm)	Luminous Intensity (mcd)		Viewing Angle ($2\theta^{1/2}$)	I_F (mA)
			Typ.	Max.		Min.	Typ.		
HV-31210/230/SYG	3.0 Round LAMP+Holder	● Green	2.00	2.60	568	10.0	25.0	60	20

HV-31260/260/UTC

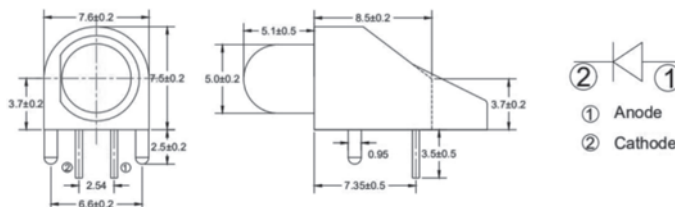
Outline Dimensions



Part Number	Size (mm)	Emitting Color	Forward Voltage (V_F)		CIE (x, y)	Luminous Intensity (mcd)		Viewing Angle ($2\theta^{1/2}$)	I_F (mA)
			Typ.	Max.		Min.	Typ.		
HV-31260/260/UTC	3.0 Round LAMP+Holder	○ White	3.00	3.80	x=0.300 y=0.300	1200.0	2800.0	80	20

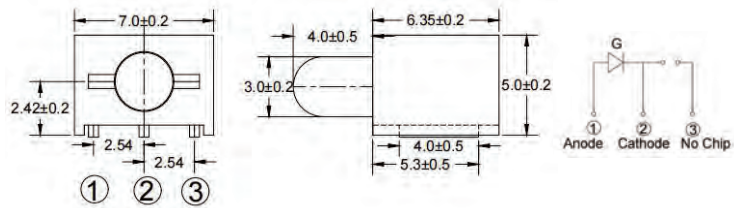
HV-315600/330/SYG-G

Outline Dimensions



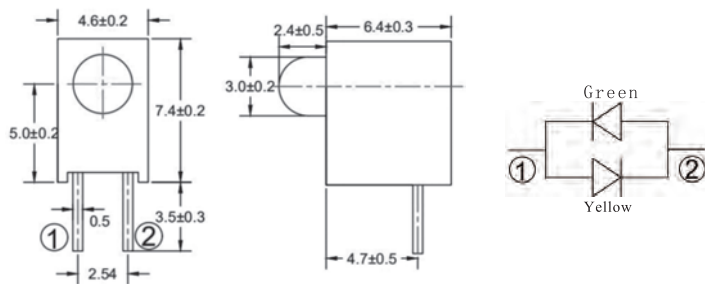
Part Number	Size (mm)	Emitting Color	Forward Voltage (V_F)		λ_D (nm)	Luminous Intensity (mcd)		Viewing Angle ($2\theta^{1/2}$)	I_F (mA)
			Typ.	Max.		Min.	Typ.		
HV-315600/330/SYG-G	5.0 Round LAMP+Holder	● Green	2.00	2.60	572	40.0	100.0	30	20

HV-315070/326/SYG Outline Dimensions



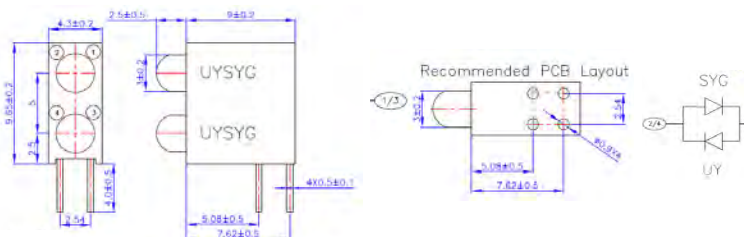
Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-315070/326/SYG	3.0 Round LAMP+Holder	● Green	2.00	2.40	570	10.0	40.0	60	20

HV-317446/260/SYGUYM Outline Dimensions

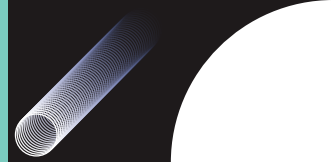


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-317446/260/SYGUYM	3.0 Round LAMP+Holder	● Green	2.00	2.50	570	4.0	10.0	120	20
		● Yellow			585	4.0	20.0		

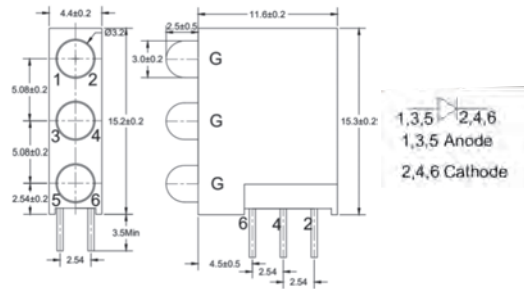
HV-32690/230/2UYSYGC Outline Dimensions



Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.		Min.	Typ.		
HV-32690/230/2UYSYGC	3.0 Round LAMP+Holder	● Yellow	2.00	2.50	590	15.0	50.0	45	20
		● Green			572	10.0	30.0		

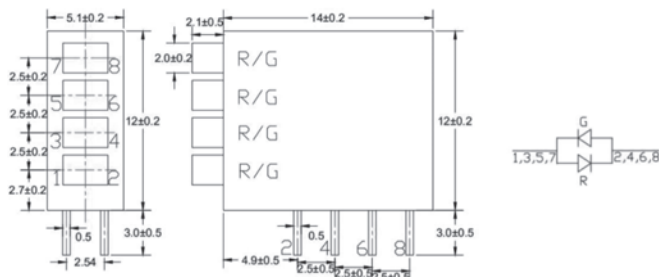


HV-331390/230/3SYG Outline Dimensions



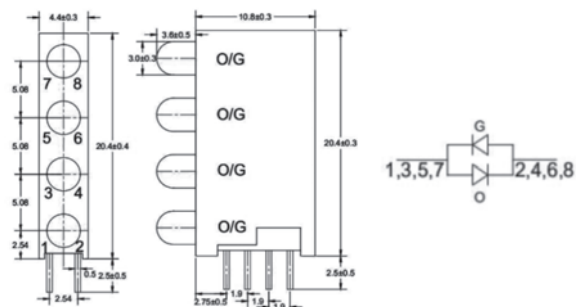
Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-331390/230/3SYG	3.0 Round LAMP+Holder	● Green	2.00	2.40	570	10.0	30.0	60	20

HV-B1844B/622/4SURSYGM Outline Dimensions



Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-B1844B/622/4SURSYGM	3.0*2.0 Square LAMP+Holder	● Red	2.00	2.60	640	4.0	20.0	120	20
		● Green			570				

HV-342346/230/4UYOSYGM Outline Dimensions

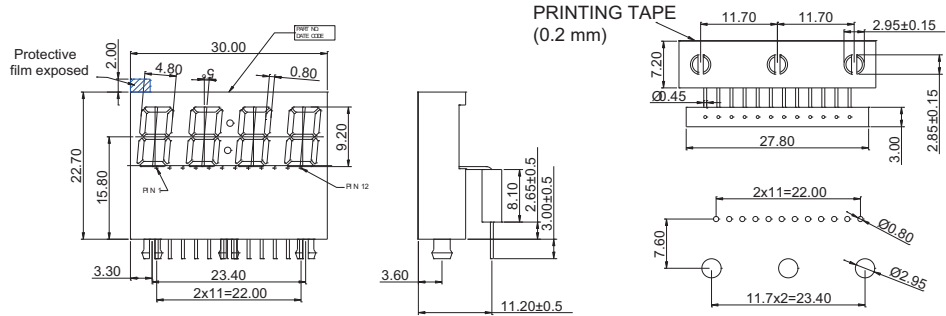


Part Number	Size (mm)	Emitting Color	Forward Voltage (V _F)		λ _D (nm)	Luminous Intensity (mcd)		Viewing Angle (2θ ^{1/2})	I _F (mA)
			Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-342346/230/4UYOSYGM	3.0 Round LAMP+Holder	● Orange	2.00	2.40	602	6.0	15.0	60	20
		● Green			569				



HCD89330

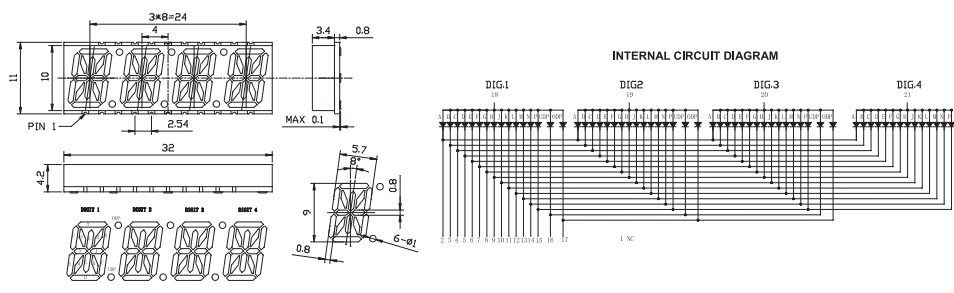
Outline Dimensions



Part Number	Segment Height mm (inch)	Emitting Color	CA/CC	λ_D (nm)/CIE (x,y)	Resin Color	Face Color	Luminous Intensity (mcd)	
							Min.	Typ.
HCD89330	9.2(0.36)	○ White	CA	x=0.270 y=0.260	White	Black	10.0	16.0

HCD89081

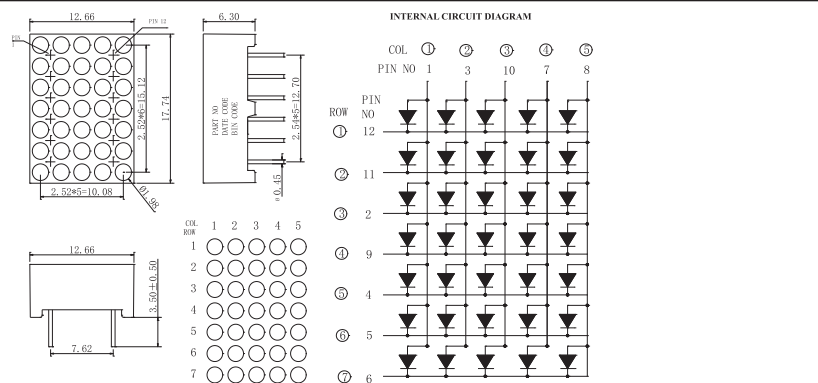
Outline Dimensions



Part Number	Segment Height mm (inch)	Emitting Color	CA/CC	λ_D (nm)/CIE (x,y)	Resin Color	Face Color	Luminous Intensity (mcd)	
							Min.	Typ.
HCD89081	9(0.35)	● Red	CA	631	White	Gray	3.4	5.4

HCD89213

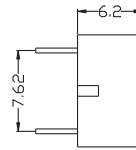
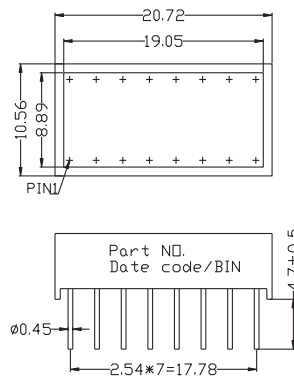
Outline Dimensions



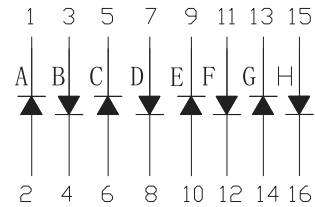
Part Number	Segment Height mm (inch)	Emitting Color	CA/CC	λ_D (nm)/CIE (x,y)	Resin Color	Face Color	Luminous Intensity (mcd)	
							Min.	Typ.
HCD89213	12.66*17.74	○ White	CA	x=0.305 y=0.315	White	Black	90.0	150.0

HCD89584

Outline Dimensions



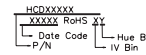
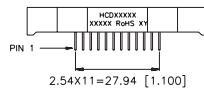
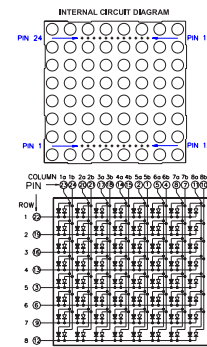
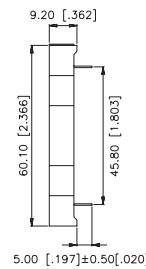
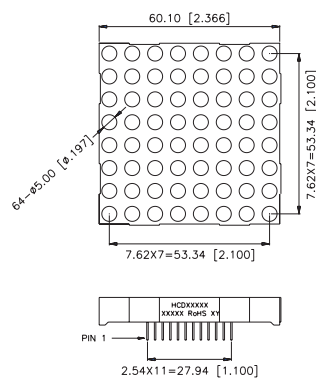
INTERNAL CIRCUIT DIAGRAM



Part Number	Segment Height mm (inch)	Emitting Color	CA/CC	λ_D (nm)/CIE (x,y)	Resin Color	Face Color	Luminous Intensity (mcd)	
							Min.	Typ.
HCD89584	20.72*10.56	Yellow	-----	587	White	White	26.0	70.0

HCD90034

Outline Dimensions



Note: "2" = Pure Green color chip
"0" = Orange color chip

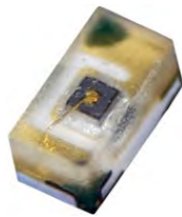
Part Number	Segment Height mm (inch)	Emitting Color	CA/CC	λ_D (nm)/CIE (x,y)	Resin Color	Face Color	Luminous Intensity (mcd)	
							Min.	Typ.
HCD90034	60.1*60.1	Red	CA	624	White	Black	93.0	130.0
		Green		525			107.0	150.0

| **HARVATEK**

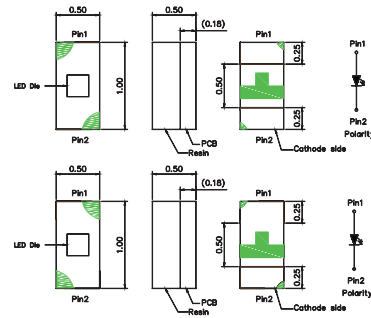
INFRARED LED



B2851 Series

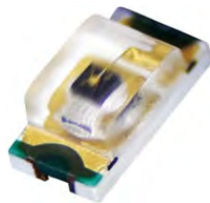


Outline Dimensions

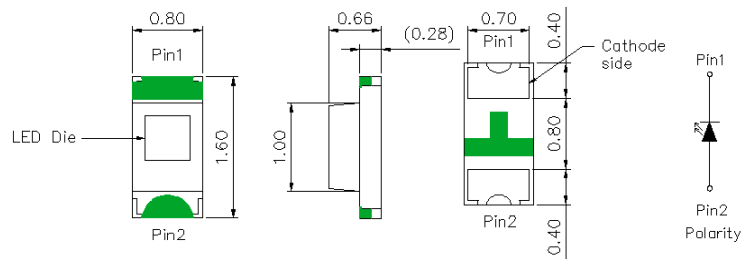


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B2851IR	1.0 * 0.5 * 0.5	940	1.7	4.5	140	70
B2851IRP		850	1.55	5.5	140	70

B13V1 Series



Outline Dimensions

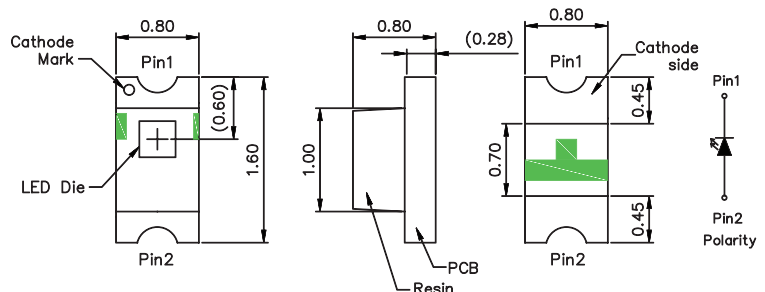


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B13V1IR	1.6 * 0.8 * 0.66	940	1.2	0.8	140	20

B1911 Series

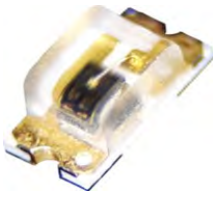


Outline Dimensions

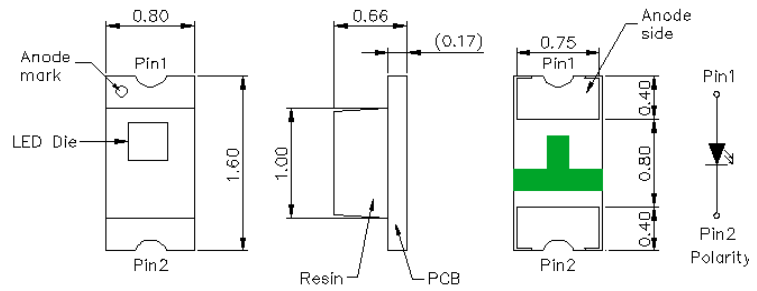


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B1911IR	1.6 * 0.8 * 0.66	940	1.6	3	140	100

B19A1 Series



Outline Dimensions

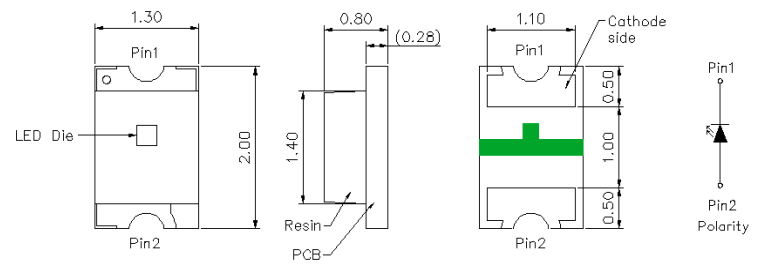


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B19A1IR	1.6 * 0.8 * 0.66	940	1.3	2	140	20
B19A1IRP		850	1.4	2	140	20

B1701 Series



Outline Dimensions

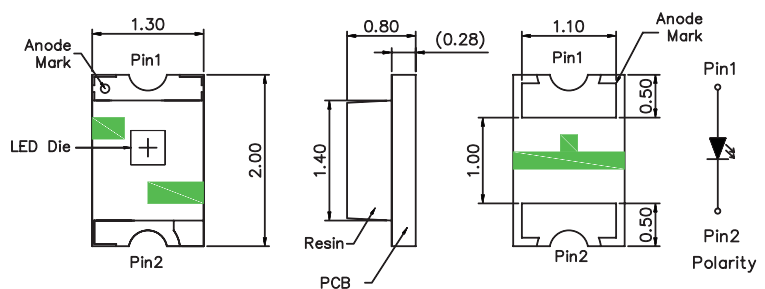


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B1701IR	2.0 * 1.3 * 0.8	940	1.3	0.85	140	20
B1701IRP		850	1.45	1.3	140	20

B17M1 Series



Outline Dimensions

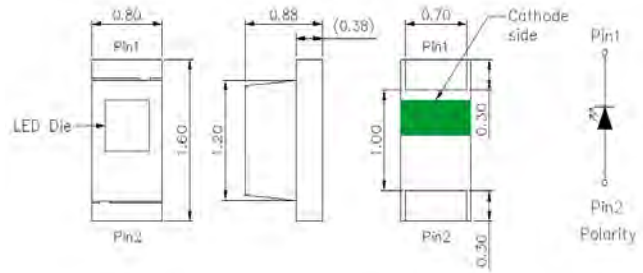


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B17M1IRP	2.0 * 1.3 * 0.8	850	1.55	10	140	100



B19H1 Series

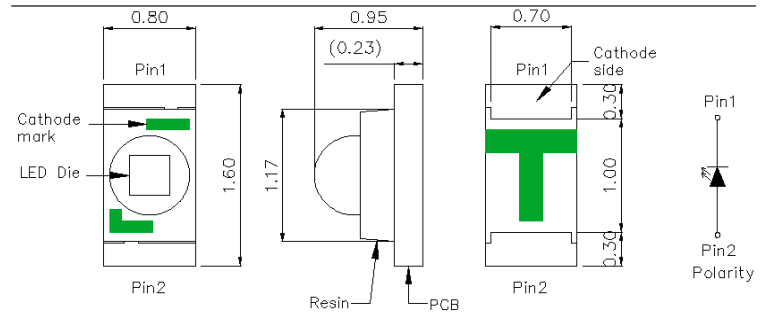
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B19H1IR	1.6 * 0.8 * 0.88	940	1.2	0.8	140	20

B18W1 Series

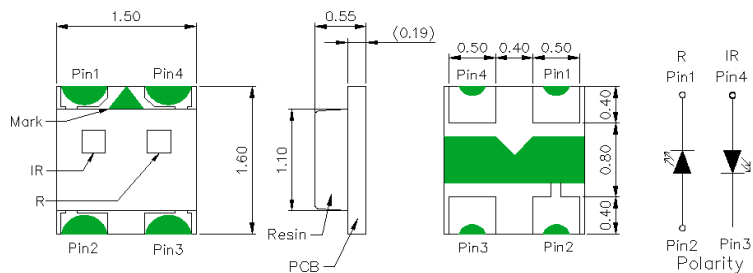
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B18W1IR	1.6 * 0.8 * 0.95	940	1.46	23	80	100
		940	1.4	6.5	60	20
B18W1IRP		850	1.55	23	80	100
			1.31	5	60	20

B26H2 Series

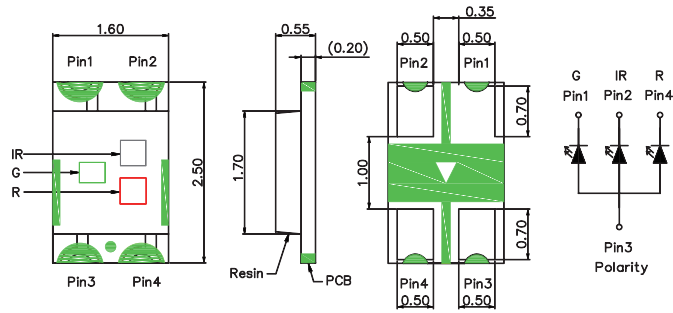
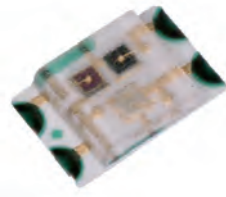
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B26H2HRRC	1.6 * 1.5 * 0.55	R:650~665 IR:870~910	R:2.2 IR:1.4	R:2.5 IR:2.0	140	20

B25G3 Series

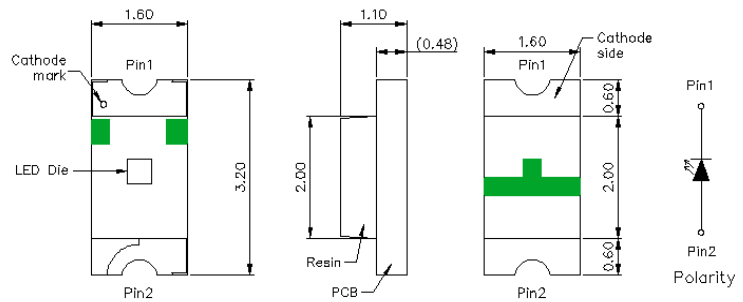
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B25G3GIRR	2.5 * 1.6 * 0.55	G:525 IR:940 R:660	G:2.7 IR:2 R:2.2	2	130	20

B1501 Series

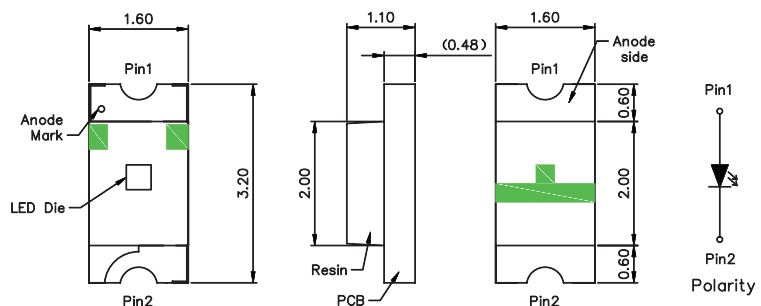
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B1501IR	3.2 * 1.6 * 1.1	940	1.3	0.85	140	20

B15T1 Series

Outline Dimensions



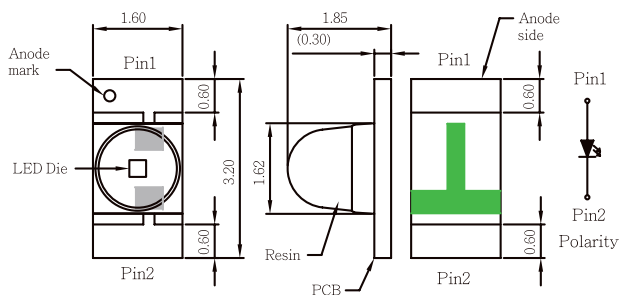
Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B15T1IR	3.2 * 1.6 * 1.1	940	1.45	5	140	50
B15T1IRP		850	1.36	2	140	20



B1591 Series



Outline Dimensions

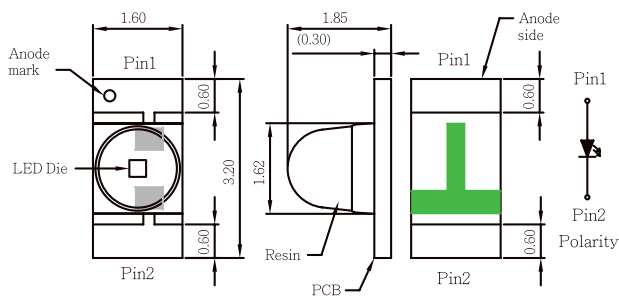


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B1591IRP	3.2 * 1.6 * 1.85	850	1.4	20	30	20

B15U1 Series



Outline Dimensions

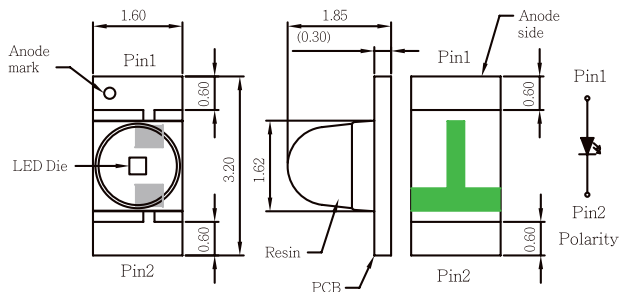


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B15U1IR	3.2 * 1.6 * 1.85	940	1.4	26	20	20
B15U1IRP		850	1.4	26	20	20

B15V1 Series



Outline Dimensions

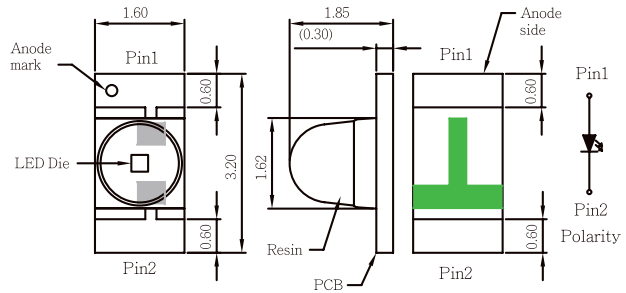


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B15V1IR	3.2 * 1.6 * 1.85	940	1.55	92	30	100
B15V1IRP		850	1.55	100	30	100
B15V1IRP (Dual-junction)		850	2.9	95	30	50

B15W1 Series



Outline Dimensions

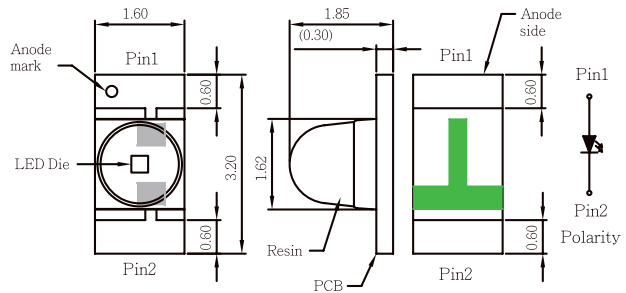


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B15W1IR	3.2 * 1.6 * 1.85	940	1.2	5	30	20

B15X1 Series



Outline Dimensions

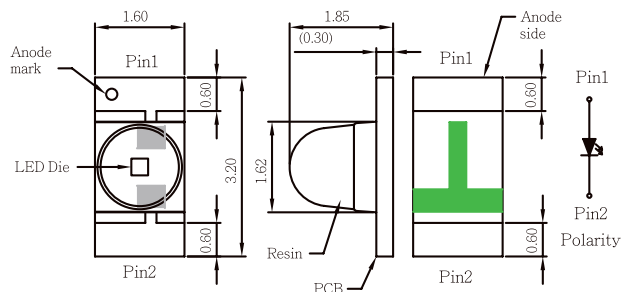


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B15X1IR	3.2 * 1.6 * 1.85	940	1.3	12	45	20
B15X1IRP		850	1.55	70	45	100

B15Y1 Series

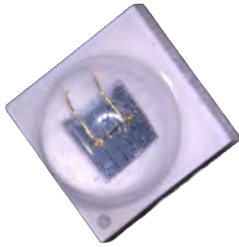


Outline Dimensions

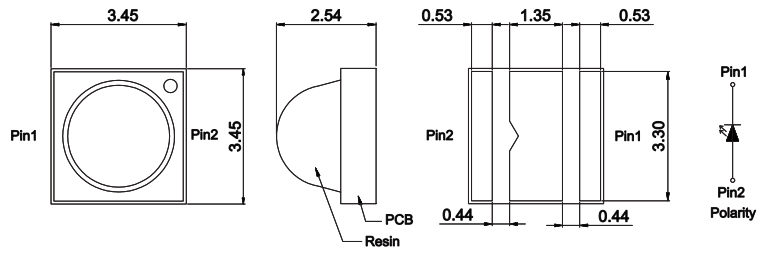


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B15Y1IR	3.2 * 1.6 * 1.85	940	1.24	4.5	20	20

C35Y1 Series

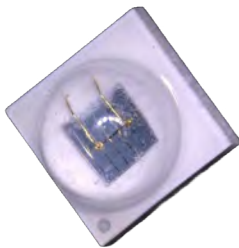


Outline Dimensions

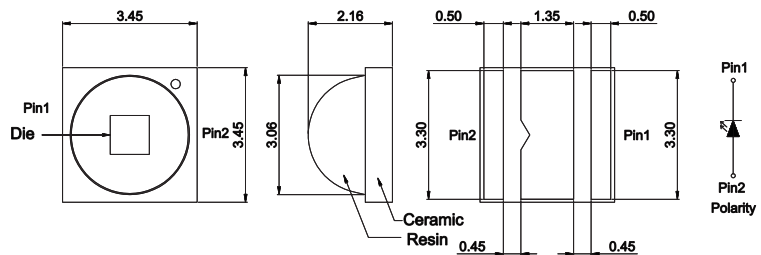


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
C35Y1IR	3.45 * 3.45 * 2.54	940	1.5	600	90	700
C35Y1IRP		850	1.5	250	90	350

C3401 Series

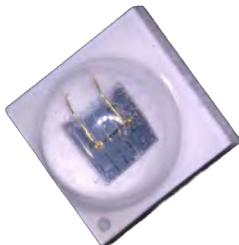


Outline Dimensions

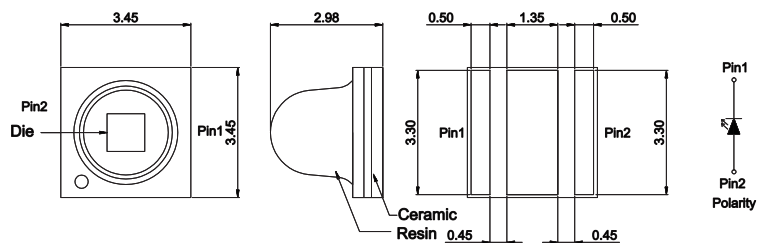


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
C3401IR	3.45 * 3.45 * 2.16	940	2.0	37.2	120	700
C3401IRP		850	2.0	40	120	700

C3411 Series



Outline Dimensions



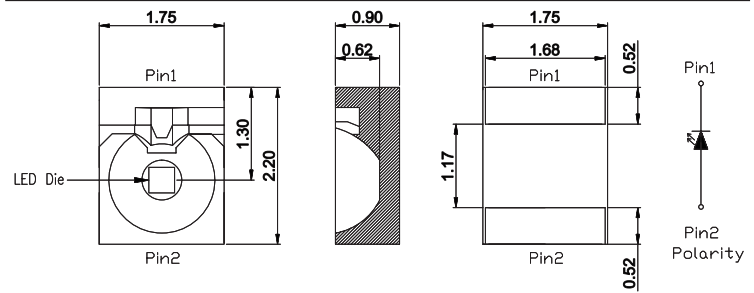
Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
C3411HR	3.45 * 3.45 * 2.98	940	625.5	525		350
C3411IRS		850	810.0	375		350



W2311 Series



Outline Dimensions

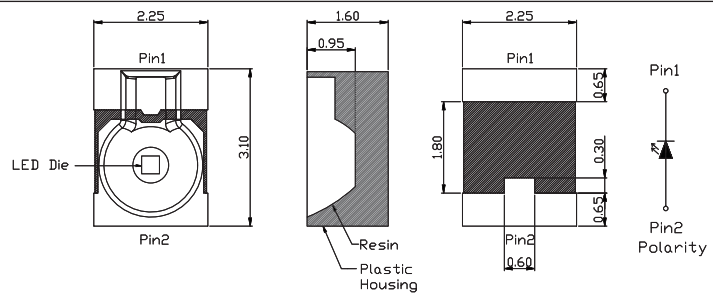


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
W2311IR	2.2 * 1.75 * 0.9	945	1.5	45	20	70
W2311IRP		850	1.6	78.9	26	100

W3331 Series



Outline Dimensions

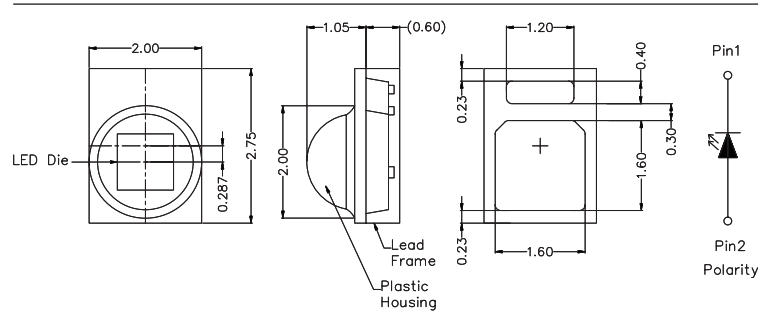


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
W3331IRE	3.1 * 2.25 * 1.6	876	1.6	84.2	15	100

T2821 Series

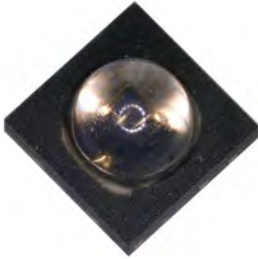


Outline Dimensions

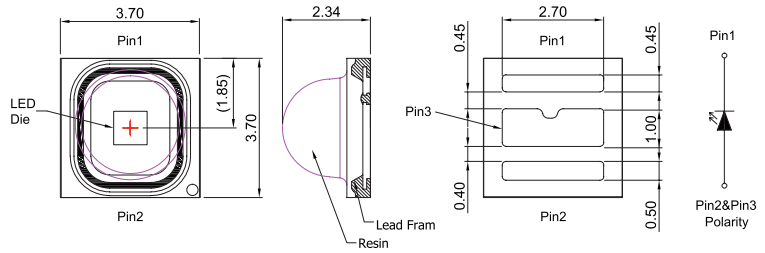


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
T2821IR	2.75 * 2.0 * 1.65	940	3.2	700	60	500
T2821IRP		850	3.2	590	60	500

T3801 Series



Outline Dimensions

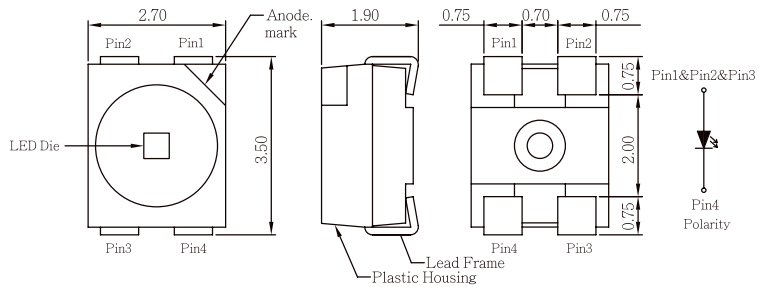


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
T3801IRD	3.7 * 3.7 * 2.34	930	3.05	780	60	650

T16C1 Series



Outline Dimensions

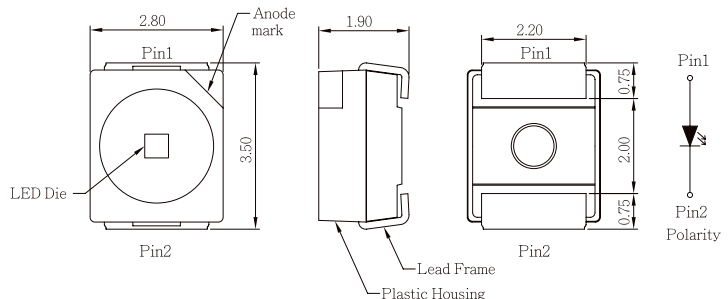


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
T16C1IR	3.5 * 2.7 * 1.9	940	1.4	4	120	20
T16C1IRP		850	3.2	25	120	100
		850	1.5	18	120	100

T16P1 Series



Outline Dimensions



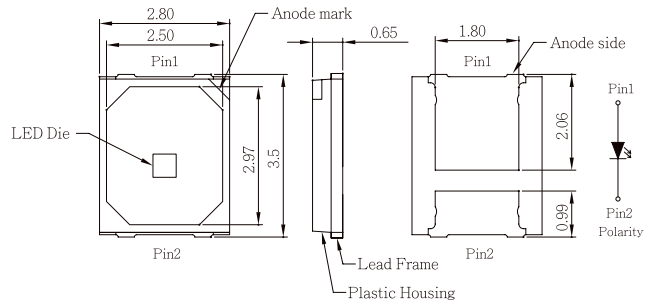
Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
T16P1IR	3.5 * 2.8 * 1.9	940	1.4	3.5	120	20
T16P1IRP		850	1.5	3.5	120	20
T16P1IRE		880	1.36	1.4	120	20



T16W1 Series



Outline Dimensions

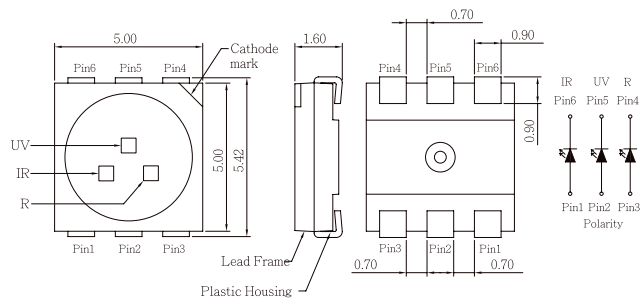


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
T16W1IR	3.5 * 2.8 * 0.65	940	2.4	135	120	700
T16W1IRP		850	1.6	48	120	250

T3A83 Series



Outline Dimensions

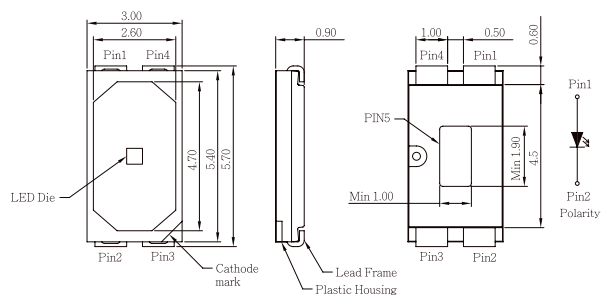


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
T3A83RURP	5.4 * 5.0 * 1.6	R(WD): 619	R: 2.2	R: 11	120	20
		UV(WP): 415	UV: 3.2	UV: 11		
		IR(WP): 835	IR: 1.55	IR: 11		

T5301 Series



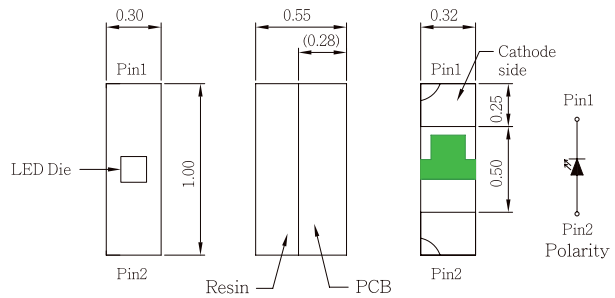
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
T5301VCP	5.7 * 3.0 * 0.9	850	2.4	100	30	200

B18M1 Series

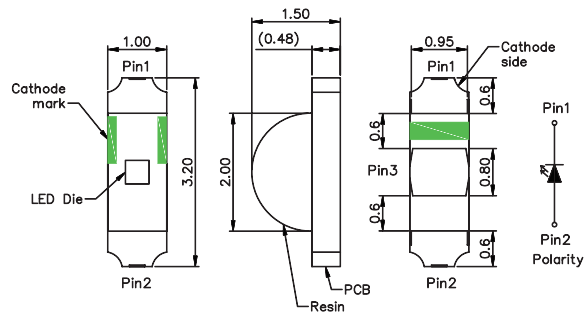
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B18M1IR	1.0 * 0.55 * 0.3	940	1.7	3.0	140	50
B18M1IRP		850	1.54	3.9	140	50

B1101 Series

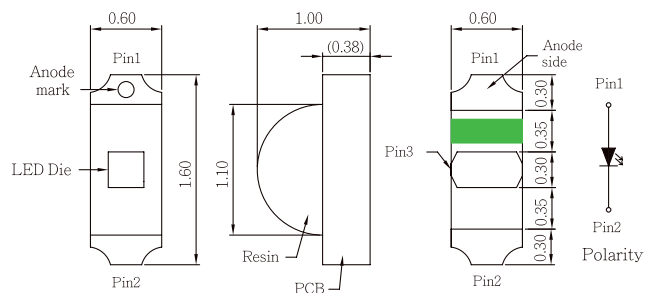
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B1101IR	3.2 * 1.5 * 1.0	940	1.6	3	140/120	100

B12F1 Series

Outline Dimensions



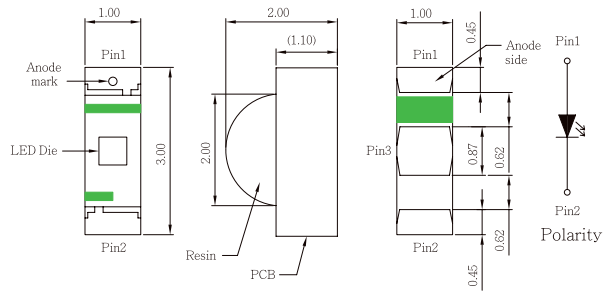
Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B12F1IR	1.6 * 1.0 * 0.6	940	1.45	5.3	140/120	50



B2141 Series



Outline Dimensions

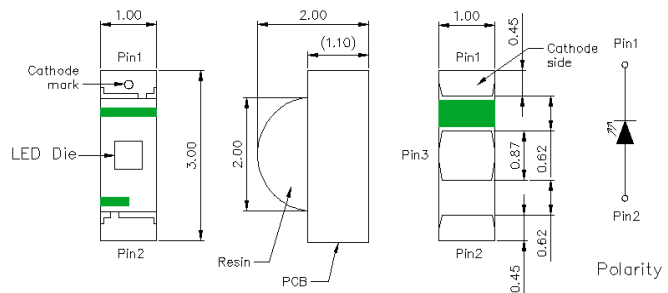


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B2141IR	3.0 * 2.0 * 1.0	940	1.33	45	140/120	100

B2151 Series



Outline Dimensions

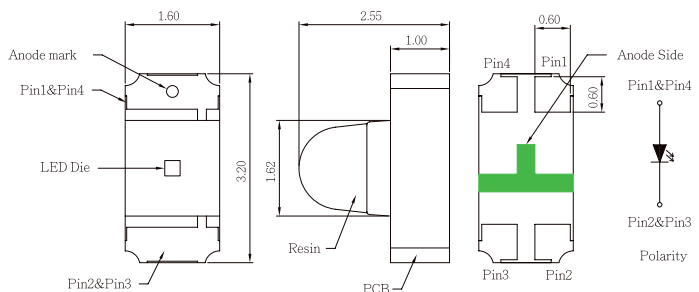


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B2151IR	3.0 * 2.0 * 1.0	940	1.21	0.85	140/120	20

B2571 Series



Outline Dimensions

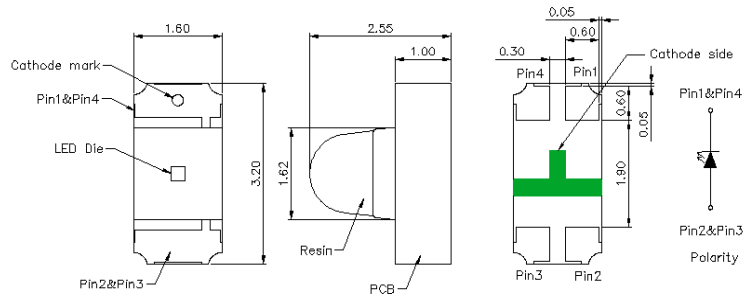


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B2571IR	3.2 * 2.55 * 1.6	940	1.46	92	30	100
B2571IRP		850	1.58	100	30	100

B2591 Series

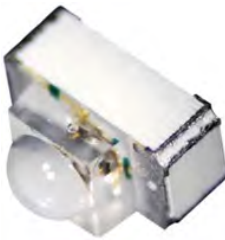


Outline Dimensions

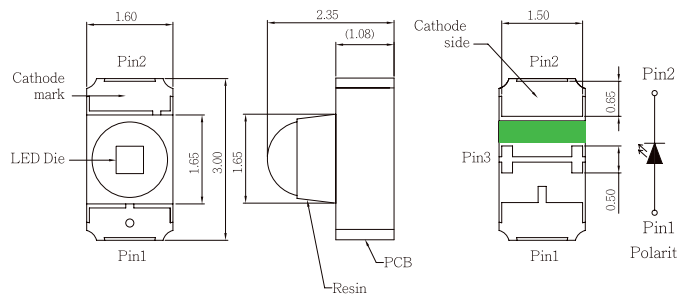


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B2591IR	3.2 * 2.55 * 1.6	940	1.4	4.8	20	20
B2591IRP		850	1.45	11	20	20

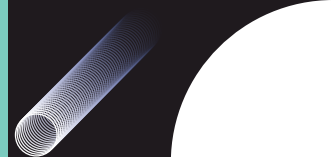
B4301 Series



Outline Dimensions

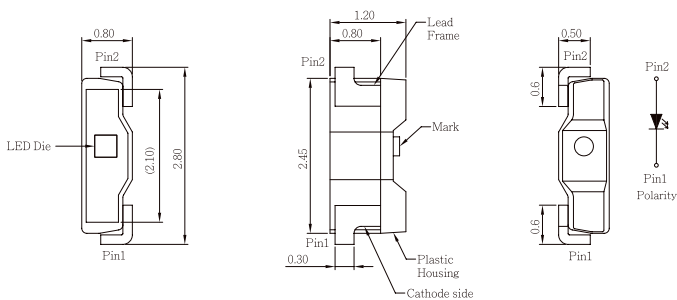


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B4301IR	3.0 * 2.35 * 1.6	940	1.3	6.5	60	20
B4301IR		940	1.45	50	60	100
B4301IRP		850	1.37	7.5	60	20



F1081 Series

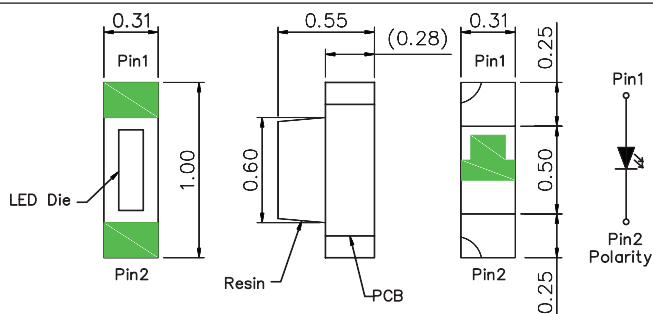
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
F1081IR	2.8 * 1.2 * 0.8	940	1.5	12.5	120	100
F1081IRP		850	1.9	13	120	100

B18Q1 Series

Outline Dimensions

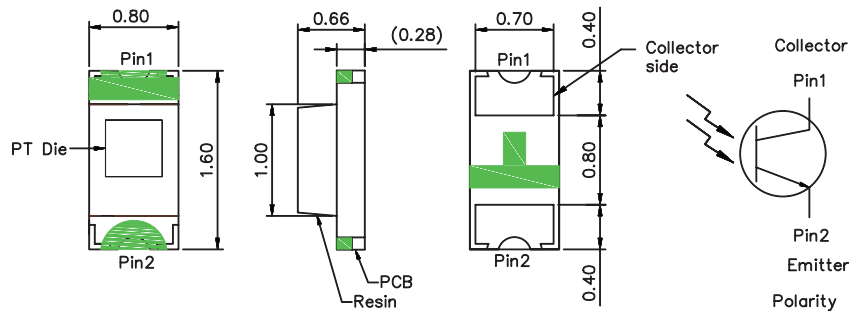


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)	I_F (mA)
		Typ.	Typ.	Typ.	Typ.	
B18Q1IR	1.00* 0.31* 0.55	935	1.44	1.55	108	20

B13V1 Series



Outline Dimensions

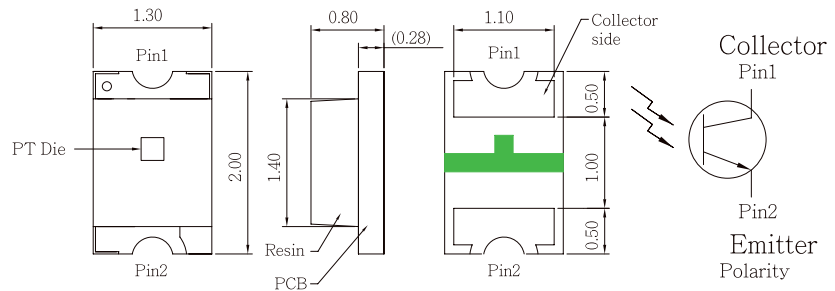


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B13V1PT	1.6 * 0.8 * 0.66	940	15/15	0.9	1.2	0.4	100	Clear
B13V1PT		940	15/15	0.9	1.2	0.4	100	Black

B1701 Series



Outline Dimensions

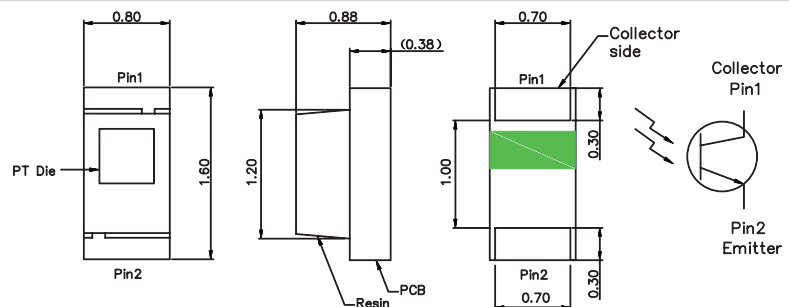


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B1701PT	2.0 * 1.3 * 0.8	940	15/15	0.1	1	0.4	100	Clear
B1701PT		940	15/15	0.1	1	0.4	100	Black

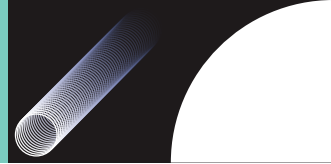
B19H1 Series



Outline Dimensions

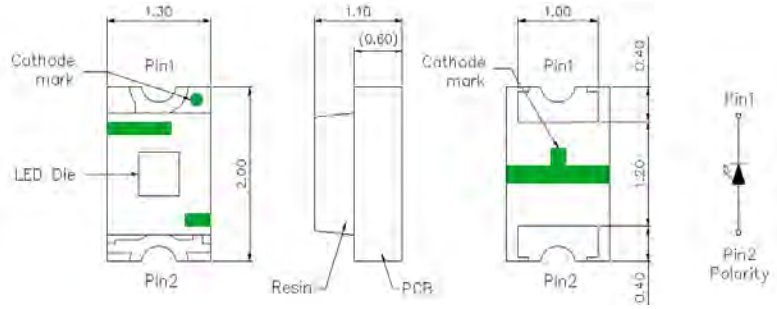
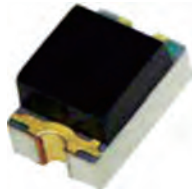


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B19H1PT	1.6 * 0.8 * 0.88	940	15/15	0.9	1.2	0.4	100	Clear
B19H1PT		940	15/15	0.9	1.2	0.4	100	Black



B17L1 Series

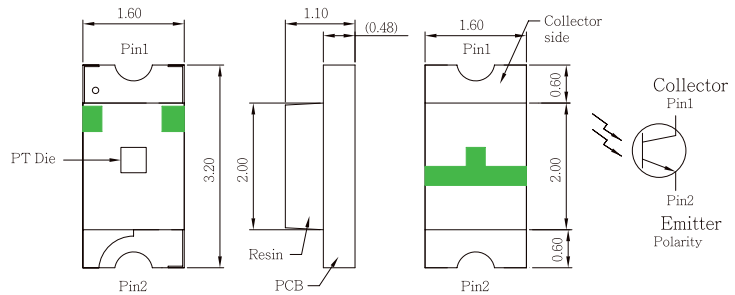
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B17L1PT	2.0 * 1.3 * 1.1	940	15/15	0.1	0.65	0.4	100	Black

B1501 Series

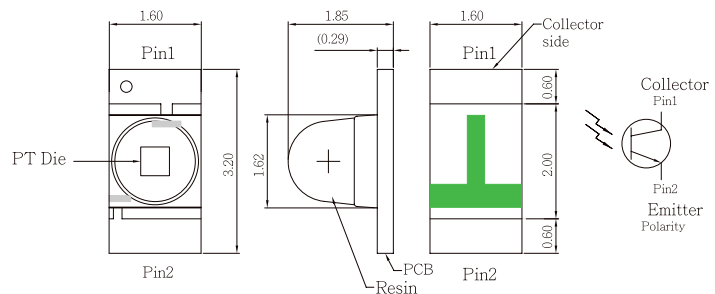
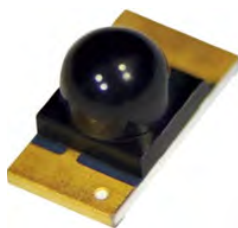
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B1501PT	3.2 * 1.6 * 1.1	940	15/15	0.1	0.5	0.4	100	Black
B1501PT		940	15/15	0.1	0.5	0.4	100	Clear

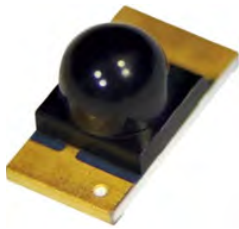
B15W1 Series

Outline Dimensions

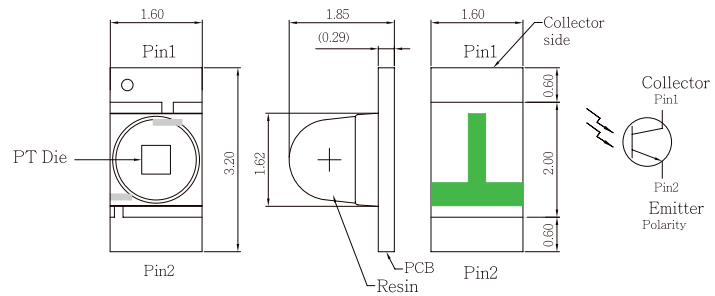


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B15W1PT	3.2 * 1.6 * 1.85	940	15/15	0.6	1	0.4	100	Black
B15W1PT		940	15/15	0.6	1	0.4	100	Clear

B15Y1 Series

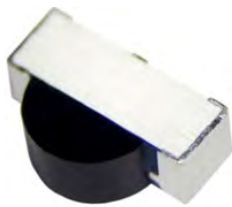


Outline Dimensions

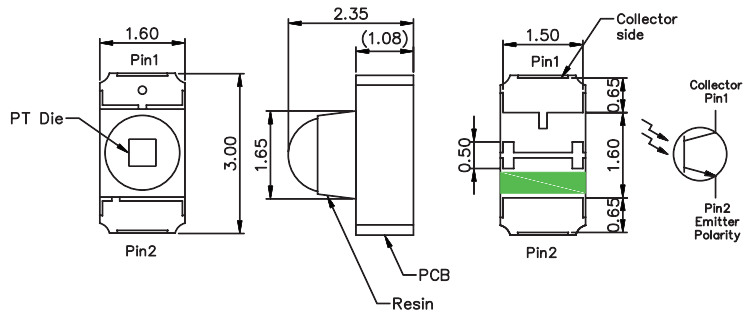


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B15Y1PT	3.2 * 1.6 * 1.85	940	15/15	3.0	5.0	0.4	100	Black
B15Y1PT		940	15/15	3.0	5.0	0.4	100	Clear

B2151 Series



Outline Dimensions

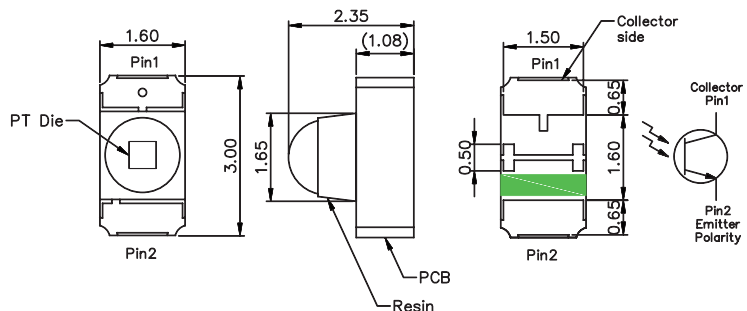


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B2151PT	3.0 * 2.0 * 1.0	940	15/15	0.2	0.35	0.4	100	-

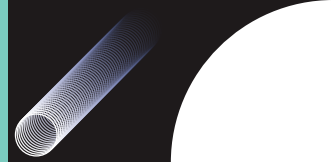
B4301 Series



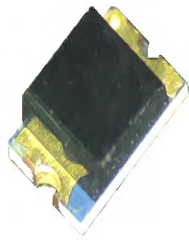
Outline Dimensions



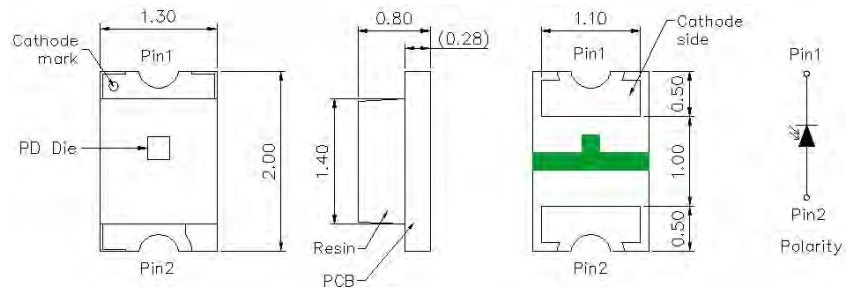
Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B4301PT	3.0 * 2.35 * 1.6	940	15/15	1.4	2	0.4	100	Black
B4301PT		940	15/15	1.4	2	0.4	100	Clear



B17M1 Series

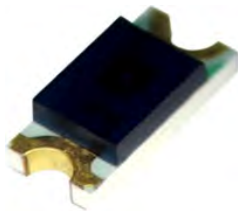


Outline Dimensions

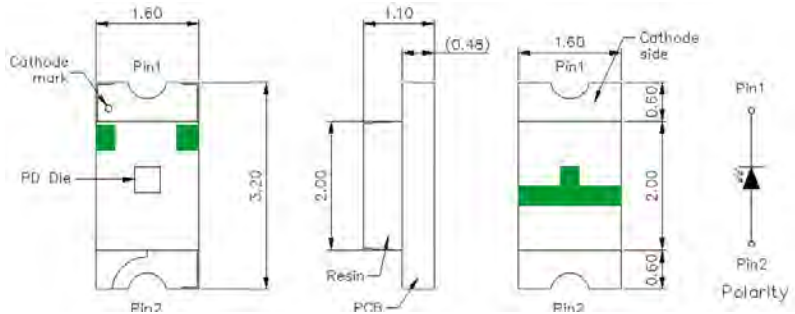


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B17M1PD	2.0 * 1.3 * 0.8	940	10/10	0.5	-	32	10	-

B1501 Series

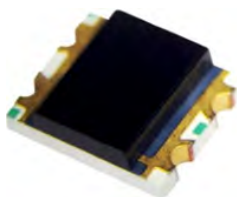


Outline Dimensions

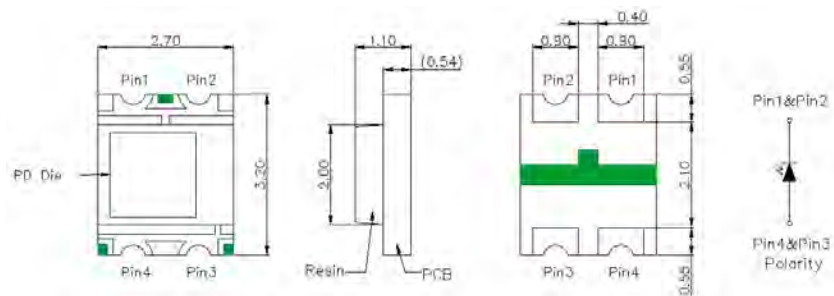


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B1501PD	3.2 * 1.6 * 1.1	940	6/6	0.2	0.87	32	10	Black
B1501PD		940	6/6	0.2	0.87	32	10	Clear

B15P1 Series



Outline Dimensions

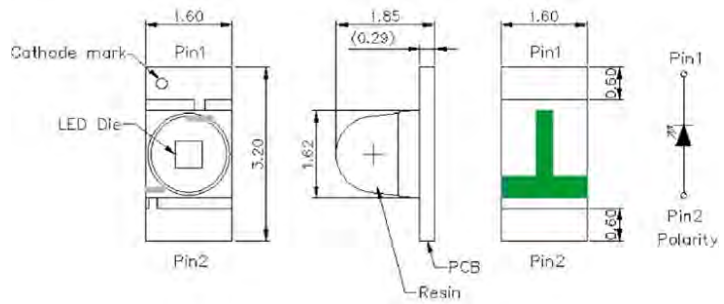


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B15P1PD	3.2 * 2.7 * 1.1	940	10/10	5.7	10	35	10	Black
B15P1PD		940	10/10	5.7	10	35	10	Clear

B15W1 Series

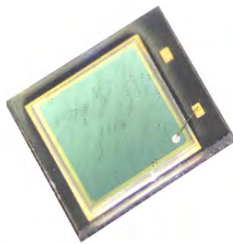


Outline Dimensions

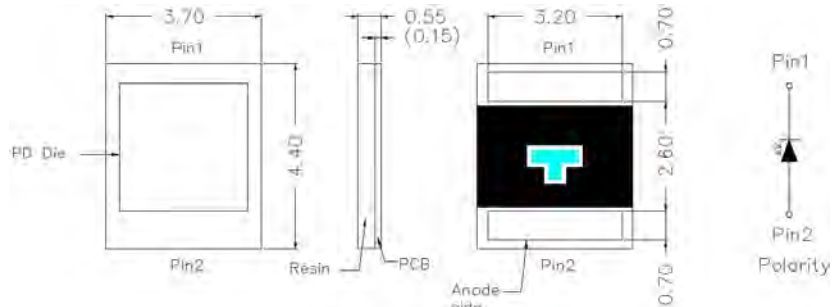


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B15W1PD	3.2 * 1.6 * 1.85	940	6/6	2	2.9	32	10	Black
B15W1PD		940	6/6	2	2.9	32	10	Clear

B4471 Series



Outline Dimensions

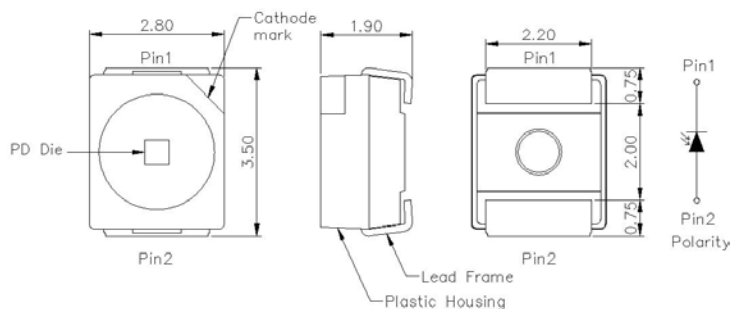


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B4471PD	4.4 * 3.7 * 0.55	940	10/10	15	20	100	10	-

T1691 Series



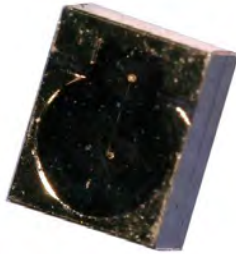
Outline Dimensions



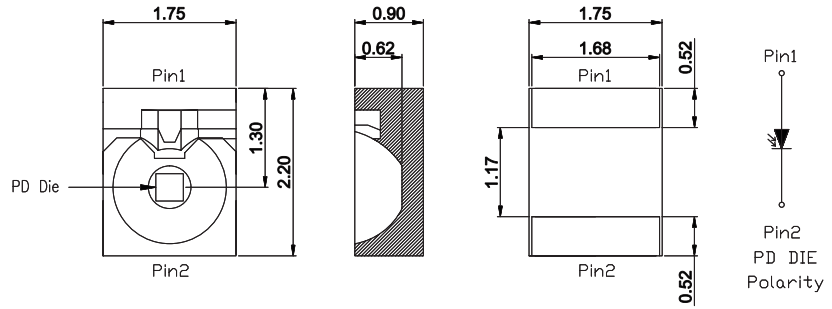
Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (μ S)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
T1691PD	3.5 * 2.8 * 1.9	940	6/6	0.2	0.87	32	10	-



W2311 Series

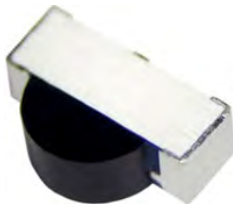


Outline Dimensions

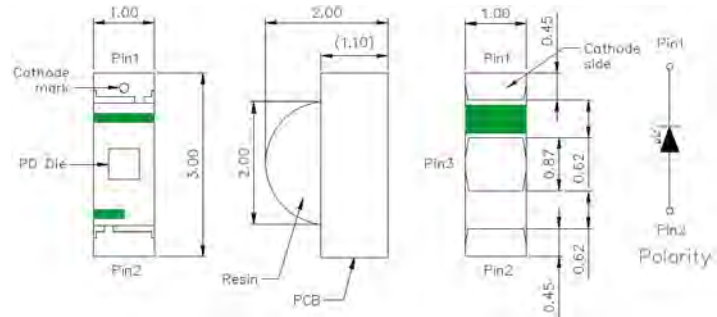


Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (uS)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
W2311PD	2.2 * 1.75 * 0.9	940	-	0.1	1.44	33	5	-

B2151 Series



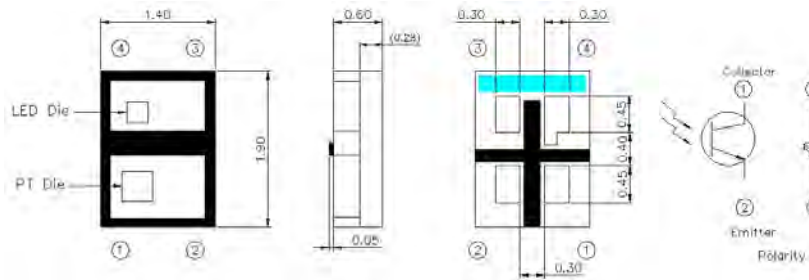
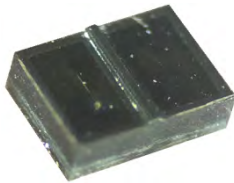
Outline Dimensions



Part Number	Size (mm) L * W * H	λ_D (nm)	Rise/Fall Time (uS)	$I_{C(ON)}$ (mA)		$V_{CE(sat)}$ (V)	I_{CEO} (nA)	Resin
		Typ.		Min.	Typ.	Max.	Max.	
B2151PD	3.0 * 2.0 * 1.0	940	6/6	0.1	0.58	33	10	-

B4192 Series

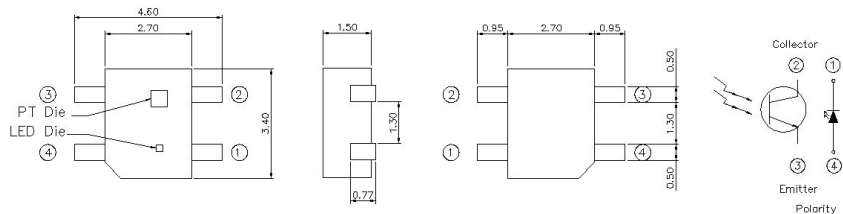
Outline Dimensions



Part Number	Size (mm) L * W * H	$I_{C(ON)}$ (mA)		VF	$V_{CE(SAT)}$ (nA)
		Min.	Typ.	Typ.	Max.
B4192PTIR	1.9 * 1.4 * 0.60	-	0.25	1.24	0.4

T4642 Series

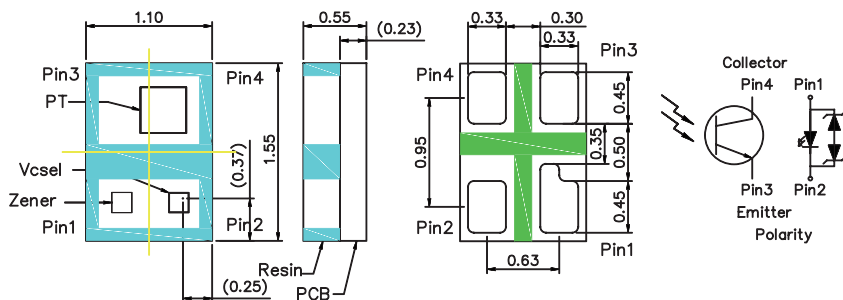
Outline Dimensions



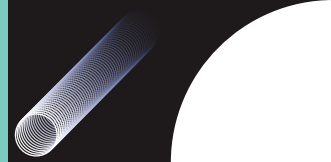
Part Number	Size (mm) L * W * H	$I_{C(ON)}$ (mA)		VF	$V_{CE(SAT)}$ (nA)
		Min.	Typ.	Typ.	Max.
T4642PTIR	4.6 * 3.4 * 1.5	0.18	0.27	1.28	0.4

E4V12 Series

Outline Dimensions



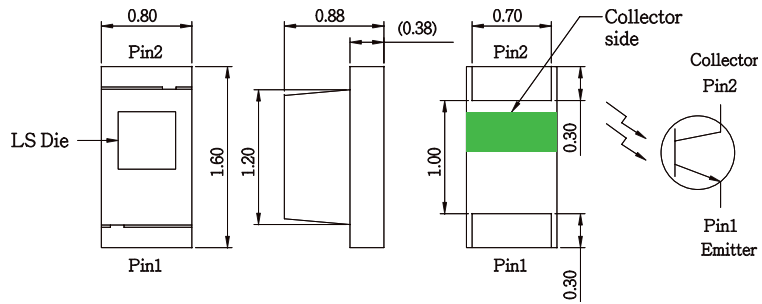
Part Number	Size (mm) L * W * H	$I_{C(ON)}$ (mA)		VF	$V_{CE(SAT)}$ (nA)
		Min.	Typ.	Typ.	Max.
E4V12VRPT	1.55 * 1.1 * 0.55	0.18	0.27	2.0	0.3



B19H1 Series



Outline Dimensions

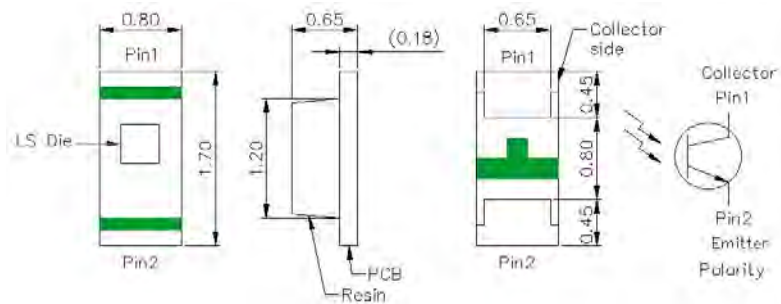


Part Number	Size (mm) L * W * H	Sensitivity λ_p (nm)	Range λ (nm)	VCE (SAT) (V)	I_{PH1} (μA)	I_{PH2} (μA)	I_{PH3} (μA)	I_{PH4} (μA)	ID (nA)
				Max.	$E_V=100 Lx$ (@6500K)	$E_V=1000 Lx$ (@6500K)	$E_V=1000 Lx$ (@2856K)	$E_V=1000 Lx$ (@4600K)	Max.
B19H1LS	1.6 * 0.8 * 0.88	630	390~700	0.4	25	280	620	-	100

B19V1 Series

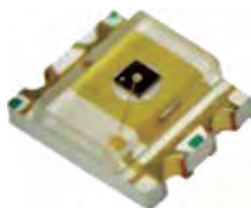


Outline Dimensions

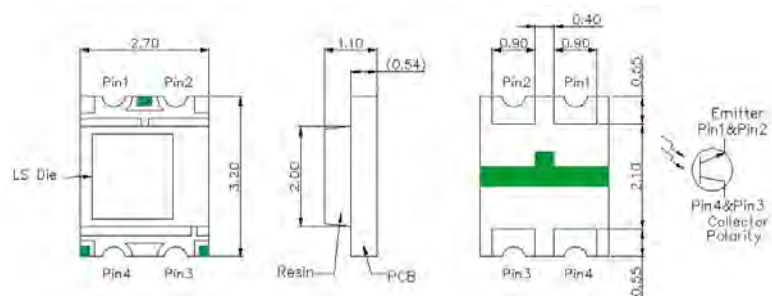


Part Number	Size (mm) L * W * H	Sensitivity λ_p (nm)	Range λ (nm)	VCE (SAT) (V)	I_{PH1} (μA)	I_{PH2} (μA)	I_{PH3} (μA)	I_{PH4} (μA)	ID (nA)
				Max.	$E_V=100 Lx$ (@6500K)	$E_V=1000 Lx$ (@6500K)	$E_V=1000 Lx$ (@2856K)	$E_V=1000 Lx$ (@4600K)	Max.
B19V1LS	1.7 * 0.8 * 0.65	630	390~700	0.4	25	280	620	-	100

B15P1 Series

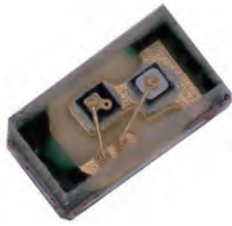


Outline Dimensions

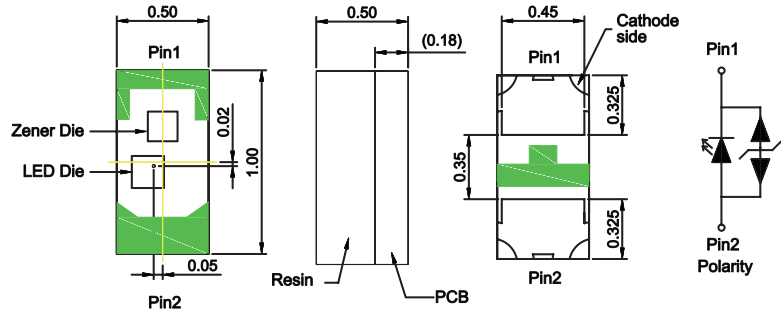


Part Number	Size (mm) L * W * H	Sensitivity λ_p (nm)	Range λ (nm)	VCE (SAT) (V)	I_{PH1} (μA)	I_{PH2} (μA)	I_{PH3} (μA)	I_{PH4} (μA)	ID (nA)
				Max.	$E_V=100 Lx$ (@6500K)	$E_V=1000 Lx$ (@6500K)	$E_V=1000 Lx$ (@2856K)	$E_V=1000 Lx$ (@4600K)	Max.
B15P1LS	3.2 * 2.7 * 1.1	630	390~700	0.4	30	330	620	790	100

E28B1 Series



Outline Dimensions

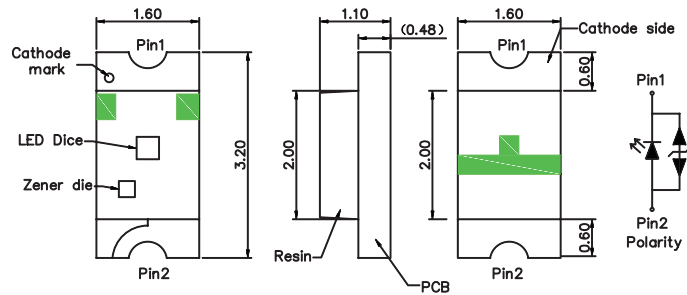


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)
		Typ.	Typ.	Max.	Max.
E28B1VCR	1.0 * 0.5 * 0.5	940	1.65	5.8	25

E1501 Series

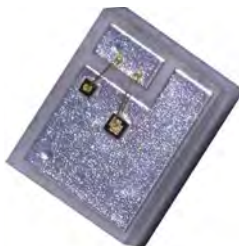


Outline Dimensions

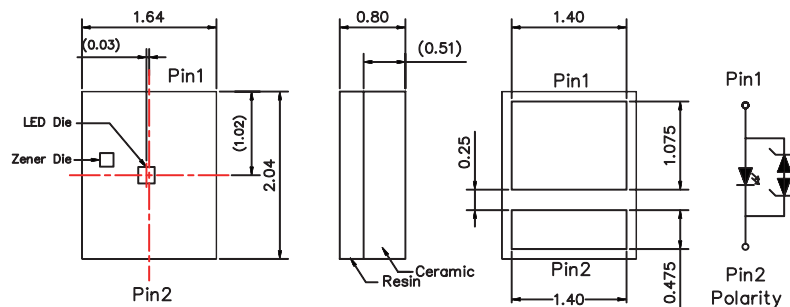


Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)
		Typ.	Typ.	Max.	Max.
E1501VCP	3.2 * 1.6 * 1.1	850	2.1	45	28

D1711 Series



Outline Dimensions



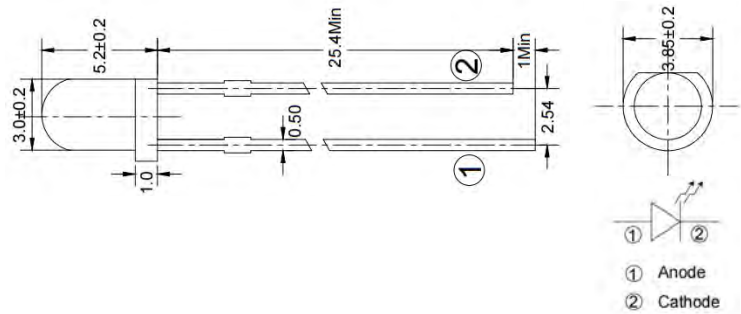
Part Number	Size (mm) L * W * H	λ_D (nm)	Forward Voltage (V_F)	Radiant Intensity (mW / sr)	Viewing Angle ($2\theta_{1/2}$)
		Typ.	Typ.	Max.	Max.
D1711VHR	2.04*1.64*0.8	660	2.4	3	20



HV-85I2004C-L50



Outline Dimensions

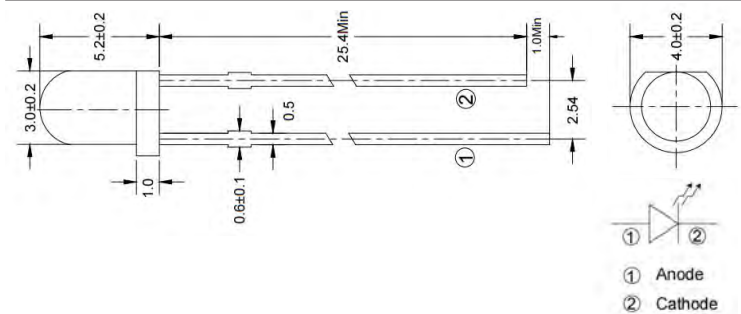


Part Number	Size (mm)	Forward Voltage (V _F)		λ _P (nm)	I _e (mW/sr)		Viewing Angle (2θ ^{1/2})	I _F (mA)
		Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-85I2004C-L50	3.0 Round IR LAMP	1.40	1.60	850	8.0	20.0	60	20

HV-94I2004C-L52



Outline Dimensions

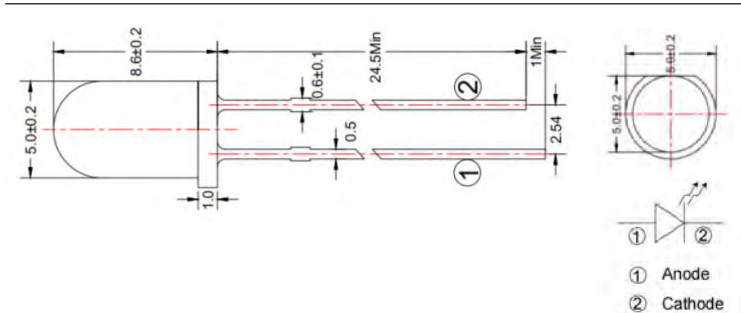


Part Number	Size (mm)	Forward Voltage (V _F)		λ _P (nm)	I _e (mW/sr)		Viewing Angle (2θ ^{1/2})	I _F (mA)
		Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-94I2004C-L52	3.0 Round IR LAMP	1.20	1.60	940	4.0	10.0	55	20

HV-85I3304C-L50



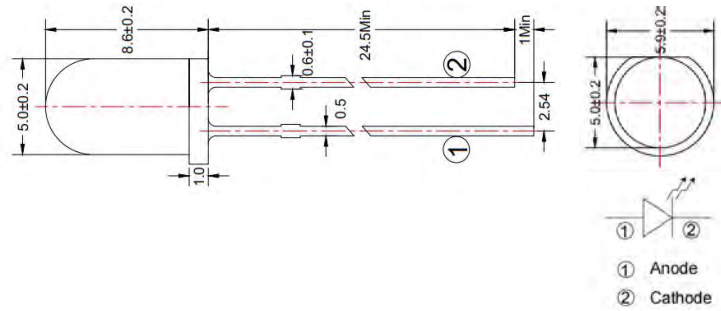
Outline Dimensions



Part Number	Size (mm)	Forward Voltage (V _F)		λ _P (nm)	I _e (mW/sr)		Viewing Angle (2θ ^{1/2})	I _F (mA)
		Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-85I3304C-L50	5.0 Round IR LAMP	1.40	1.60	850	15.0	30.0	25	20

HV-94I3303C-L52

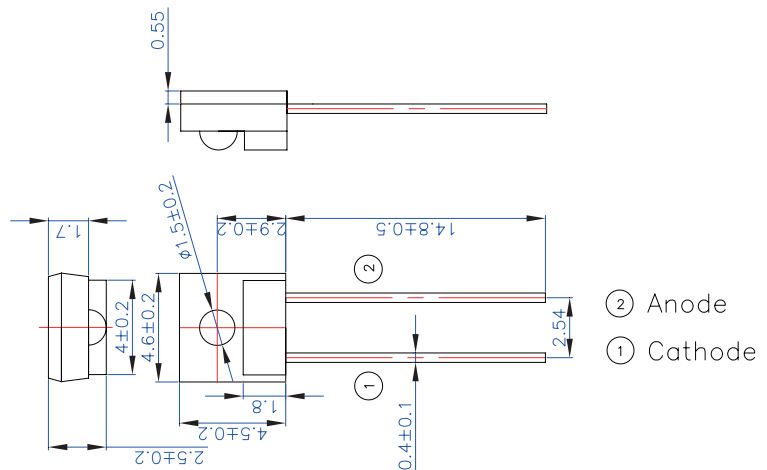
Outline Dimensions



Part Number	Size (mm)	Forward Voltage (V _F)		λ _P (nm)	I _e (mW/sr)		Viewing Angle (2θ ^{1/2})	I _F (mA)
		Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-94I3303C-L52	5.0 Round IR LAMP	1.20	1.60	940	10.0	30.0	18	20

HV-94IS118C-P6-DA

Outline Dimensions



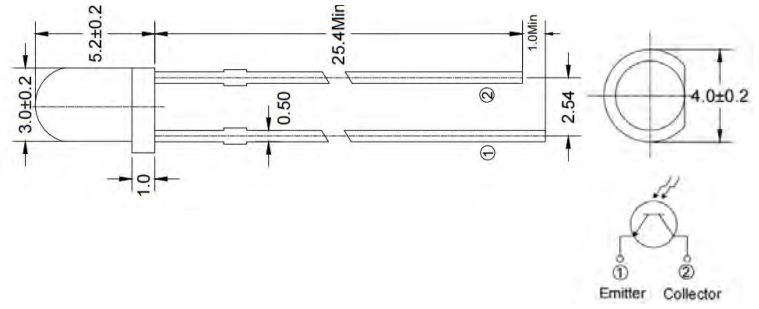
Part Number	Size (mm)	Forward Voltage (V _F)		λ _P (nm)	I _{C(on)} (μA)		Viewing Angle (2θ ^{1/2})	I _F (mA)
		Typ.	Max.	Typ.	Min.	Typ.	Typ.	
HV-94IS118C-P6-DA	4.6*1.7*4.5 SIDE LOOK IR LED	1.20	1.50	940	698.0	1300.0	20	20



HV-1302004B-L50



Outline Dimensions

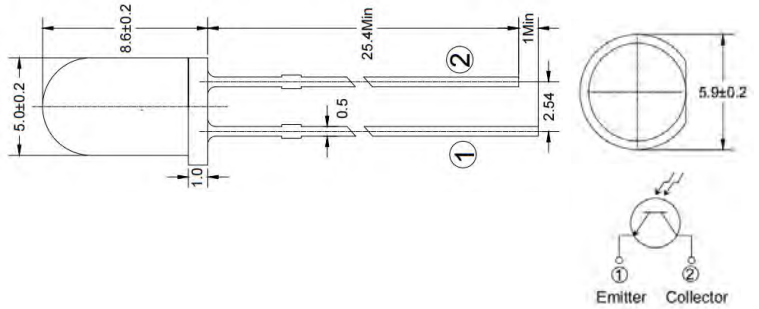


Part Number	Size (mm)	Vce(sat) (V)		λ_p (nm)		I _{c(on)} (mA)		Rise/Fall Time (μ S)
		Max.	Typ.	Min.	Typ.	Min.	Typ.	Typ.
HV-1302004B-L50	3.0 Round PT LAMP	0.4	940	0.7	2.0	15/15		

HV-1303304B

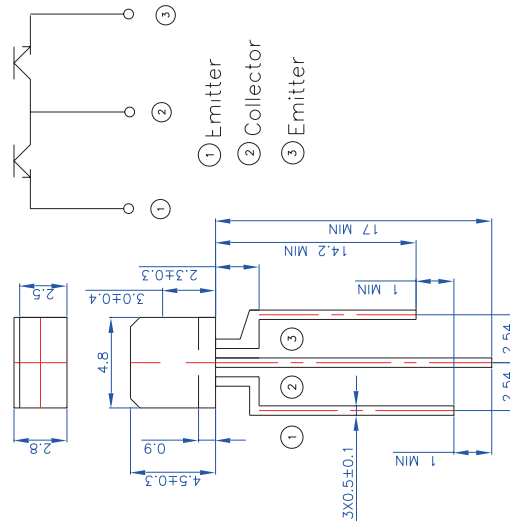


Outline Dimensions



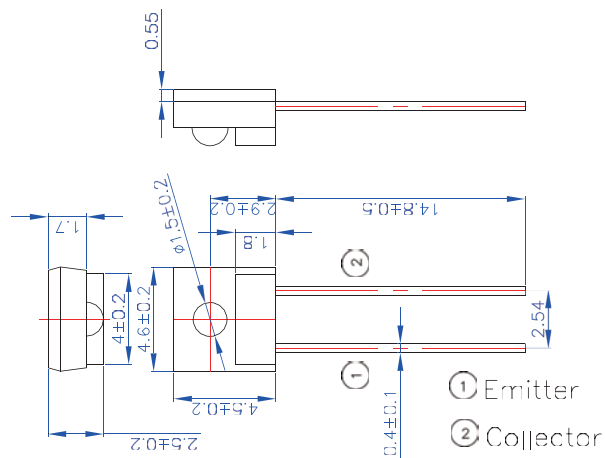
Part Number	Size (mm)	Vce(sat) (V)		λ_p (nm)		I _{c(on)} (mA)		Rise/Fall Time (μ S)
		Max.	Typ.	Min.	Typ.	Min.	Typ.	Typ.
HV-1303304B	5.0 Round PT LAMP	0.4	940	0.8	2.8	15/15		

HV-1302559B-H2-L2 Outline Dimensions



Part Number	Size (mm)	Vce(sat) (V)	λ_p (nm)	$I_{c(on)}$ (mA)		Rise/Fall Time (μ S)
		Max.	Typ.	Min.	Typ.	Typ.
HV-1302559B-H2-L2	4.8*2.5*4.5 SIDE LOOK PT LED	0.4	940	0.129	1.085	15/15

HV-130S118C-P6 Outline Dimensions



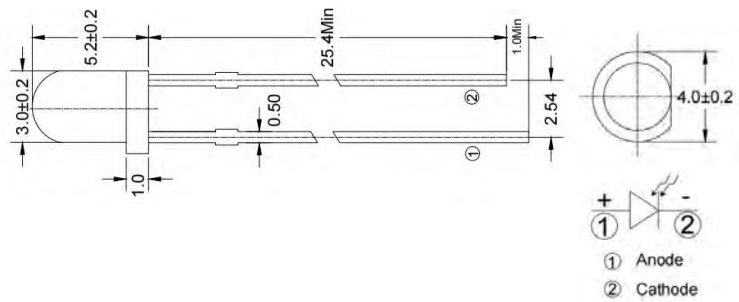
Part Number	Size (mm)	Vce(sat) (V)	λ_p (nm)	$I_{c(on)}$ (mA)		Rise/Fall Time (μ S)
		Max.	Typ.	Min.	Typ.	Typ.
HV-130S118C-P6	4.6*1.7*4.5 SIDE LOOK PT LED	0.4	940	1.89	3.10	15/15



HV-1202004B-L3



Outline Dimensions

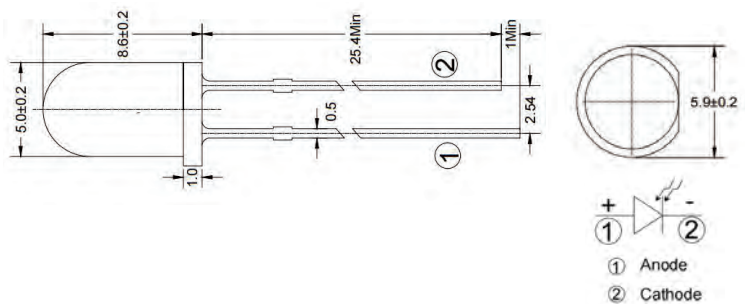


Part Number	Size (mm)	BV_R (V)		λ_p (nm)	I_L (μA)		I_D (nA)	Rise/Fall Time (nS)
		Min.	Typ.	Typ.	Min.	Typ.	Max.	Typ.
HV-1202004B-L3	3.0 Round PD LAMP	32.0	170.0	940	4.0	12.0	10.0	45/45

HV-1203304B-L6



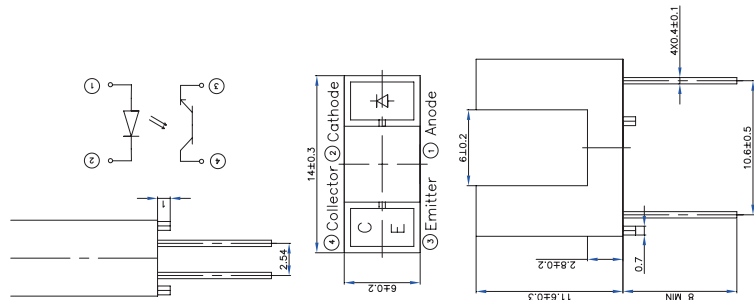
Outline Dimensions



Part Number	Size (mm)	BV_R (V)		λ_p (nm)	I_L (μA)		I_D (nA)	Rise/Fall Time (nS)
		Min.	Typ.	Typ.	Min.	Typ.	Max.	Typ.
HV-1203304B-L6	5.0 Round PD LAMP	32.0	170.0	940	8.0	20.0	10.0	50/50

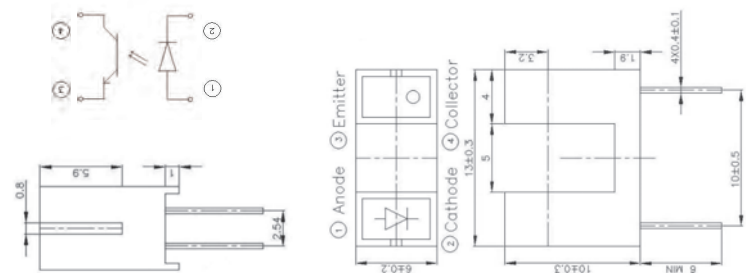
Transmissive

HV-21S140116/S11C Outline Dimensions



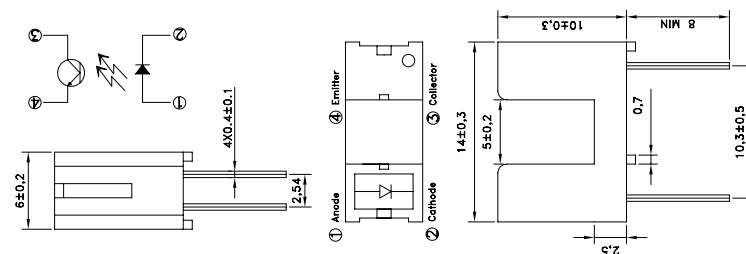
Part Number	Size (mm)	Forward Voltage (V _F)		Vce(sat) (V)	I _{c(on)} (mA)	Gap Distance (mm)		I _b (nA)
		Typ.	Max.	Max.	Min.	Typ.	Max.	
HV-21S140116/S11C	14.0*6.0*11.6	1.20	1.50	0.4	2.5	6.0	100	

HV-21S130100/S11C-F2 Outline Dimensions

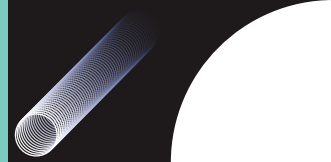


Part Number	Size (mm)	Forward Voltage (V _F)		Vce(sat) (V)	I _{c(on)} (mA)	Gap Distance (mm)		I _b (nA)
		Typ.	Max.	Max.	Min.	Typ.	Max.	
HV-21S130100/S11C-F2	13.0*6.0*10.0	1.20	1.50	0.4	0.5	5.0	100	

HV-21S140100/S11C Outline Dimensions



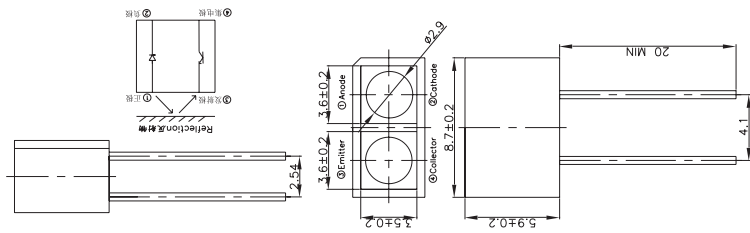
Part Number	Size (mm)	Forward Voltage (V _F)		Vce(sat) (V)	I _{c(on)} (mA)	Gap Distance (mm)		I _b (nA)
		Typ.	Max.	Max.	Min.	Typ.	Max.	
HV-21S140100/S11C	14.0*6.0*10.0	1.20	1.50	0.4	0.5	5.0	100	



Reflective

HV-22S087059/829B

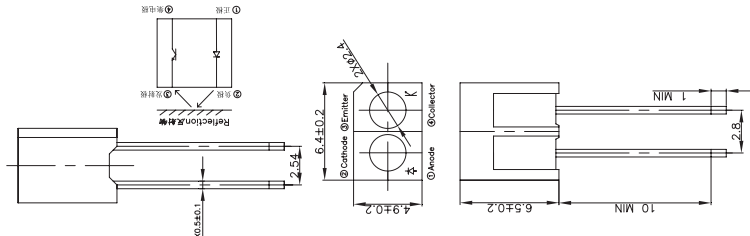
Outline Dimensions



Part Number	Size (mm)	Forward Voltage (V _F)		Vce(sat) (V)	I _{c(on)} (mA)	I _D (nA)
		Typ.	Max.	Max.	Min.	Max.
HV-22S087059/829B	8.7*3.5*5.9	1.20	1.50	0.4	0.2	100

HV-22S064065/242B

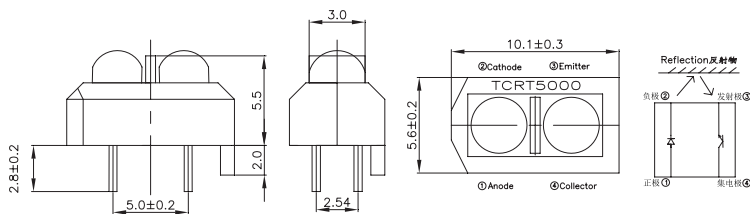
Outline Dimensions



Part Number	Size (mm)	Forward Voltage (V _F)		Vce(sat) (V)	I _{c(on)} (mA)	I _D (nA)
		Typ.	Max.	Max.	Min.	Max.
HV-22S064065/242B	6.4*4.9*6.5	1.20	1.50	0.4	0.4	100

HV-22S101055/829B-L8-F28

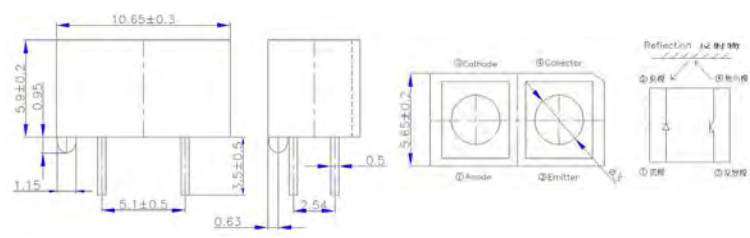
Outline Dimensions



Part Number	Size (mm)	Forward Voltage (V _F)		Vce(sat) (V)	I _{c(on)} (mA)	I _D (nA)
		Typ.	Max.	Max.	Min.	Max.
HV-22S101055/829B-L8-F28	10.1*5.6*5.5	1.20	1.50	0.4	0.6	100

HV-22S106059/200B

Outline Dimensions



Part Number	Size (mm)	Forward Voltage (V _F)		Vce(sat) (V)	I _{c(on)} (mA)	I _D (nA)
		Typ.	Max.	Max.	Min.	Max.
HV-22S106059/200B	10.65*5.65*5.9	1.20	1.50	0.4	0.2	100

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