



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



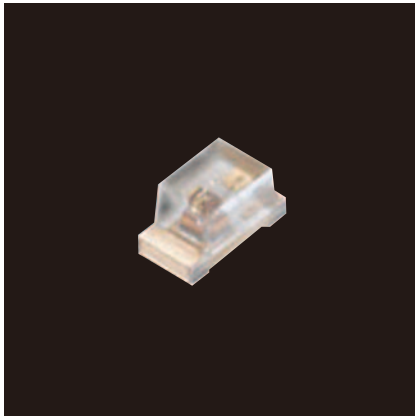
Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





SML-31 series

1608 (0603)
1.6 × 0.8mm (t=0.8mm)

Features

- 1608 standard size (1.6 × 0.8mm, t=0.8mm)
- Abundant color variations with diverse luminous intensity types

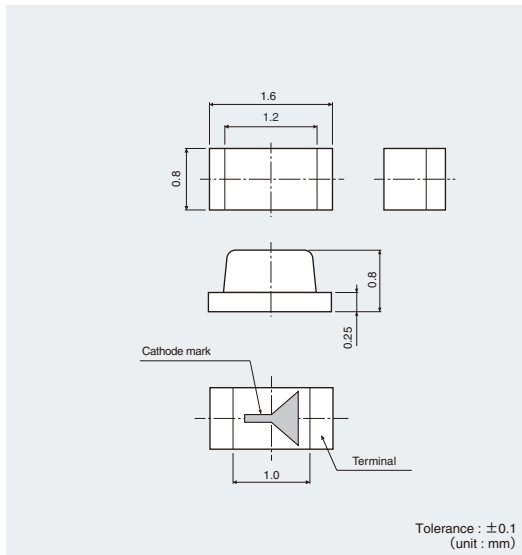


Product Specifications

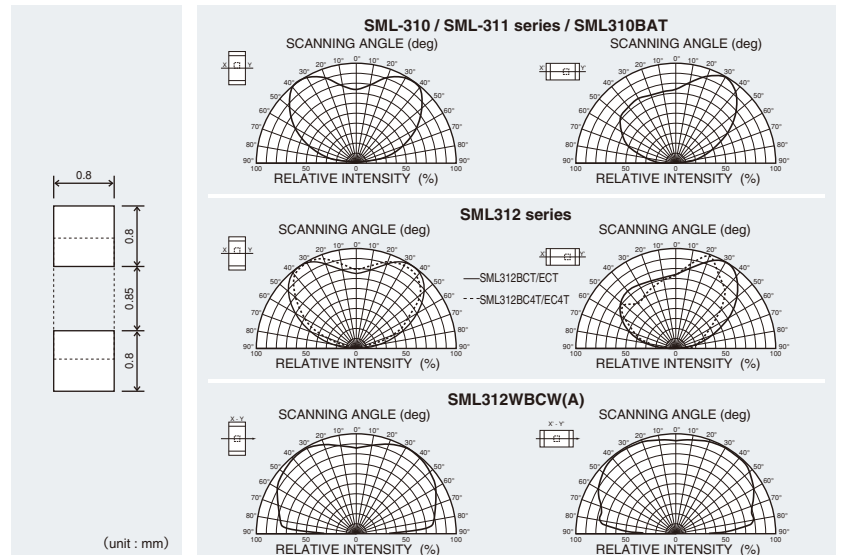
Part No.	LED chip	Emitting color	Absolute maximum ratings (Ta=25°C)					Electrical and optical characteristics (Ta=25°C)										
			Power dissipation PD (mW)	Forward current IF (mA)	Peak forward current I _{FP} (mA)	Reverse voltage VR (V)	Operating temperature Topr (°C)	Storage temperature Tsig (°C)	Forward voltage VF (V)		Reverse current IR (μA)		Dominant wavelength λD (nm)			Luminous intensity Iv (mcd)		
								Typ.	Max.	Max.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
■ SML-310VT	GaAsP on GaP	Red	55					2	20			625	630	635	20	1.4	4	20
■ SML-311UT	AlGaInP on GaAs			44					1.8	2			615	620	625	2	0.9	2.5
■ SML-311DT			Orange										602	605	608		1.6	3.15
■ SML-310DT	GaAsP on GaP			55					2	20						20	2.2	6.3
■ SML-311WT	AlGaInP on GaAs	Yellow	44		60 _{±1}	4		-40 to +85	1.8	2	4	587	590	593	2	0.9	2.5	2
■ SML-311YT													584	587	590		2.2	6.3
■ SML-310YT	GaAsP on GaP	Yellowish Green	55	20					2.1									
■ SML-310MT	GaP																	
■ SML-310PT			Green														1.4	4
■ SML312ECT		Bluish Green							3.3	20		520	527	535	20	90	200	20
■ SML312EC4T												3.2	525			36	90	
■ SML312BCT	InGaIn on SiC	Blue	84		100 _{±2}	5			3.3		5	464	470	476		22	63	
■ SML312BC4T												3.2		46				
■ SML310BAT			94		70 _{±2}				3.8			460	466	472		1.4	3.6	
□ SML312WBCW(A)		White	108	30	100 _{±2}				3.0	5		(x, y)	(0.30, 0.29)	5	45	71	5	

※ 1:Duty 1/5, 200Hz / ※ 2:Duty 1/10, 1kHz

Dimensions

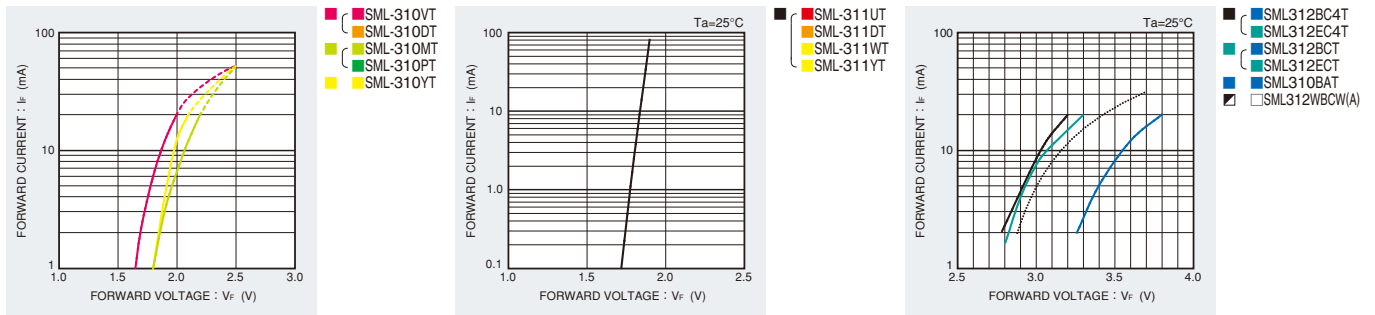


Recommended Solder Pattern Viewing Angle

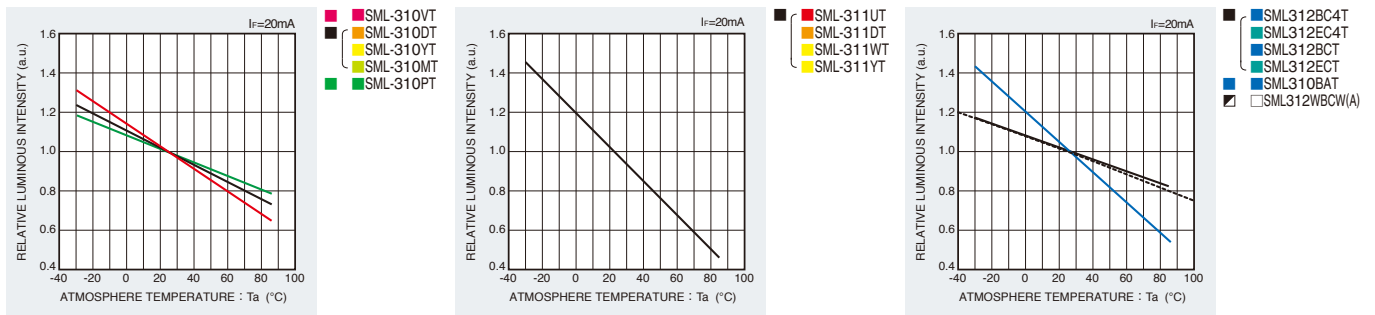


Electrical Characteristics Curves

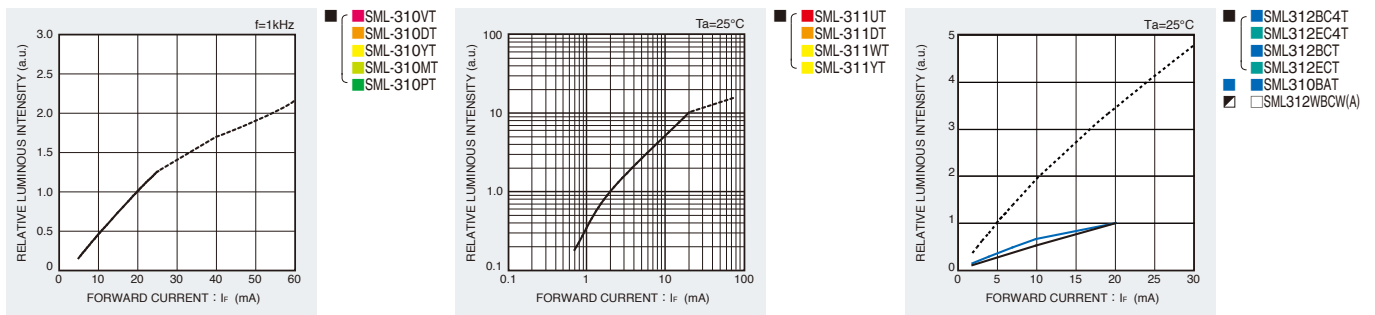
Forward Current-Forward Voltage



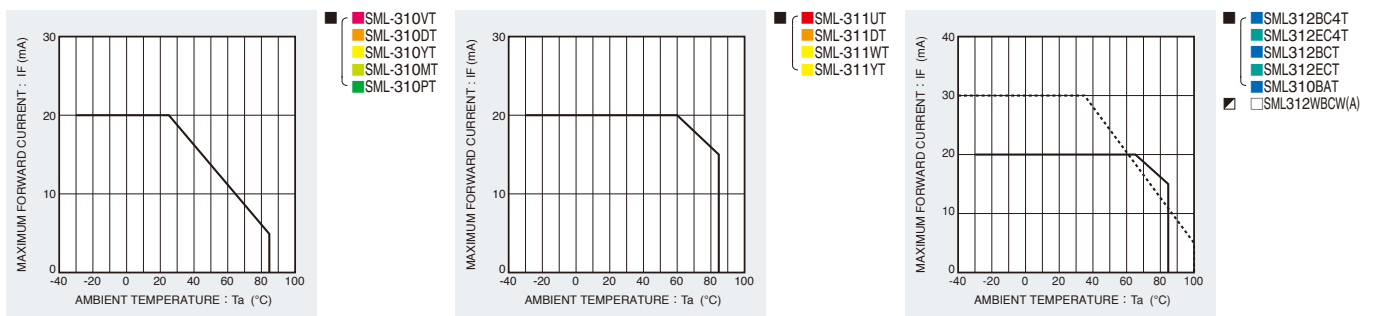
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Deratings



SML-31 series

Rank Reference of Brightness

Red (V, U)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X		
			1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1600		
Mini-mold Chip LEDs	1608	0.8	SML-311UT ^{※/※1}																	
			SML-310VT [※]																	

Orange (D)

(Ta=25°C, If=2mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	
			1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1600	
Mini-mold Chip LEDs	1608	0.8	SML-311DT																

Yellow (Y, W)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	
			1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1600	
Mini-mold Chip LEDs	1608	0.8	SML-311YT ^{※/※1}																
			SML-311WT ^{※/※1}						SML-310YT [※]										

Green (M, P, E)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	
			0.63 to 1.0	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1800	
Mini-mold Chip LEDs	1608	0.8	SML-310MT [※]						SML312ECT [※]											
			SML-310PT [※]						SML312EC4T [※]											

Blue (B)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W		
			0.9 to 1.4	1.4 to 2.2	2.2 to 3.6	3.6 to 5.6	5.6 to 9.0	9 to 14	14 to 22	22 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900		
Mini-mold Chip LEDs	1608	0.8	SML310BAT						SML312BC4T										
			SML310BAT						SML312BCT										

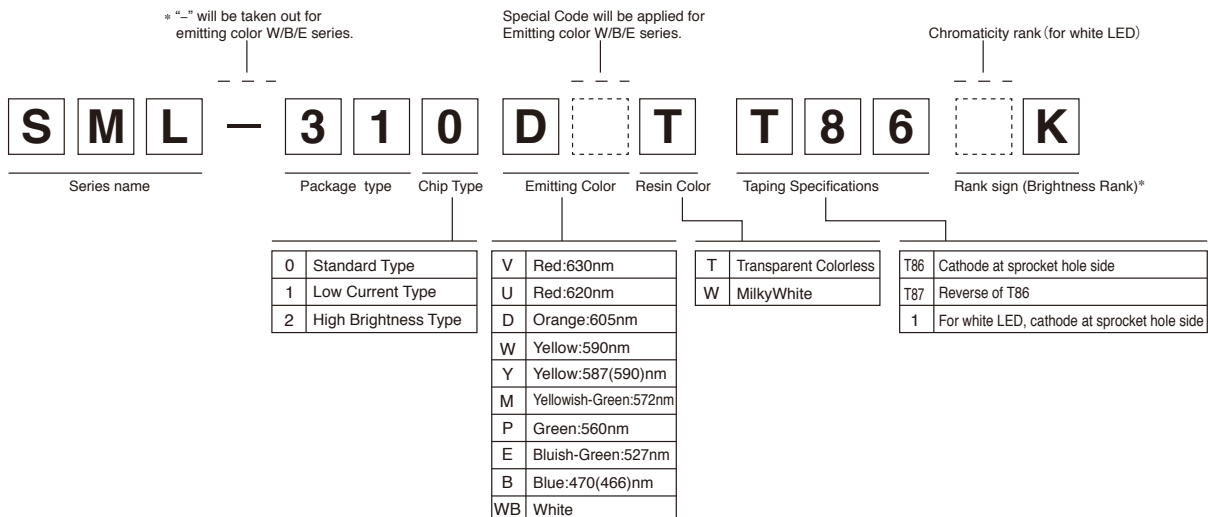
White (WB)

(Ta=25°C, If=5mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	P	Q	R	S	T	U	V	W	X1	X2	Y1	Y2	Z1		
			25 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900	900 to 1100	1100 to 1400	1400 to 1800	1800 to 2200	2200 to 2800		
Mini-mold Chip LEDs	1608	0.8	SML312WBCW(A)														

※ Brightness on specification sheet include tolerance of within ±10%. ※1: If=2mA

Part No. Construction



- Concerning the Brightness rank
 - Please refer to the rank chart above for luminous intensity classification.
 - Part name is individual for each rank.
 - When shipped as sample, the part name will be a representative part name.
- General products are free of ranks. Please contact sales if rank appointment is needed.

Packing Specification

ROHM LED products are being shipped with desiccant (silica gel) concluded in moisture-proof bags. Pasting the moisture sensitive label on the outer surface of the moisture-proof bags or enclosing the humidity indication card inside the bag is available upon request. Please contact the nearest sales office or distributor if necessary.

Notes

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