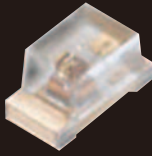


SML-31 series



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

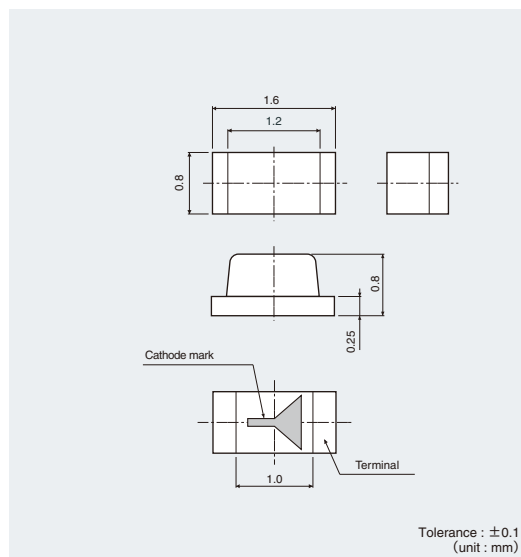
Color Type	V	U	D	Y	W
	M	P	E	B	WB

Product Specifications

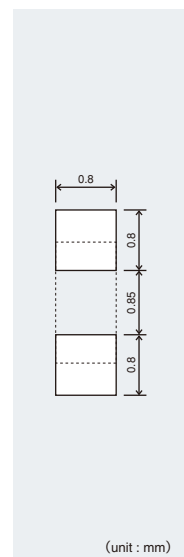
Part No.	LED chip	Emitting color	Absolute maximum ratings (Ta=25℃)						Electrical and optical characteristics (Ta=25℃)											
			Power dissipation Pd(mW)	Forward current IF(mA)	Peak forward current IFP(mA)	Reverse voltage VR(V)	Operating temperature Topr(℃)	Storage temperature Tstg(℃)	Forward voltage VF		Reverse current IR		Dominant wavelength λD				Luminous intensity Iv			
									Typ. (V)	IF(mA)	Max. (μA)	VR(V)		Min. (nm)	Typ. (nm)	Max. (nm)	IF(mA)	Min. (mcd)	Typ. (mcd)	IF(mA)
■ 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			20			-30 to +85		2.1		100									
■ SML-310MT	GaP	Yellowish Green	55						2.2					567	570	573		3.6	16	
■ SML-310PT		Green												557	560	563		1.4	4	
■ SML312ECT	InGaN	Bluish Green							3.3	20				520	527	535	20	90	200	20
■ SML312EC4T										3.2				525			36	90		
■ SML312BCT		Blue		84		100±2	5		-40 to +100	3.3			5	464	470	476		22	63	
■ SML312BC4T											3.2								46	
□ SML312WBCW(A)		White	108	30	100±2		-40 to +100		3.0	5				(x, y) (0.30, 0.29)		5	45	71	5	

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

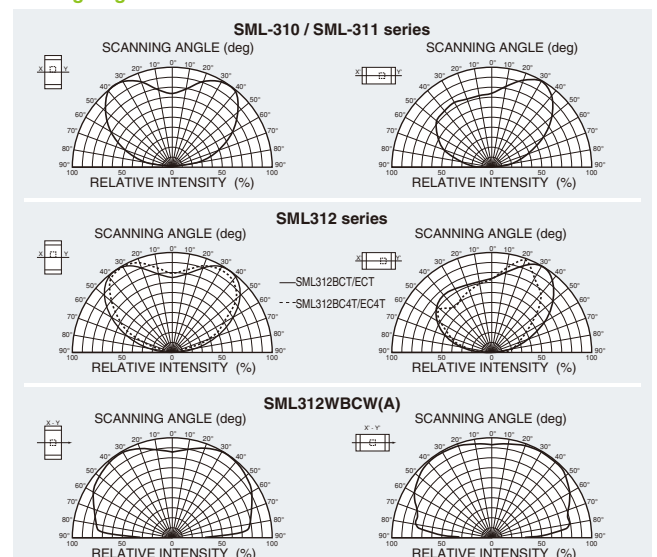
Dimensions



Recommended Solder Pattern

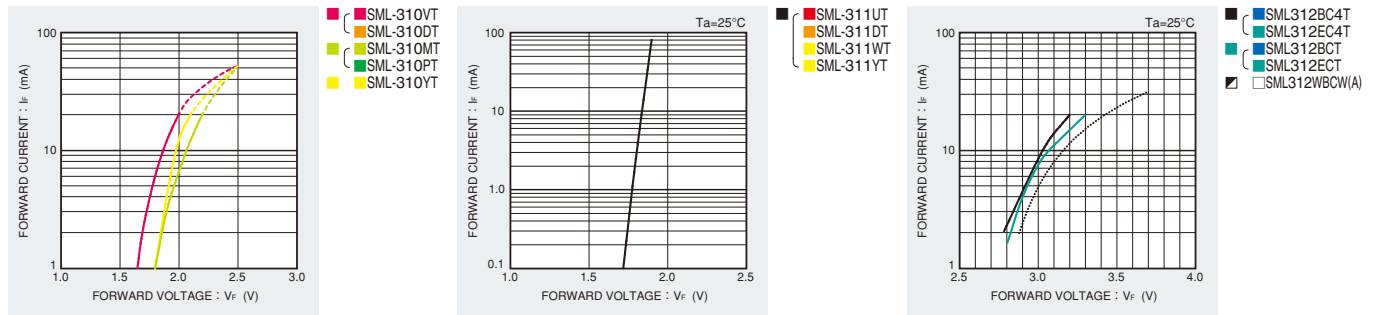


Viewing Angle

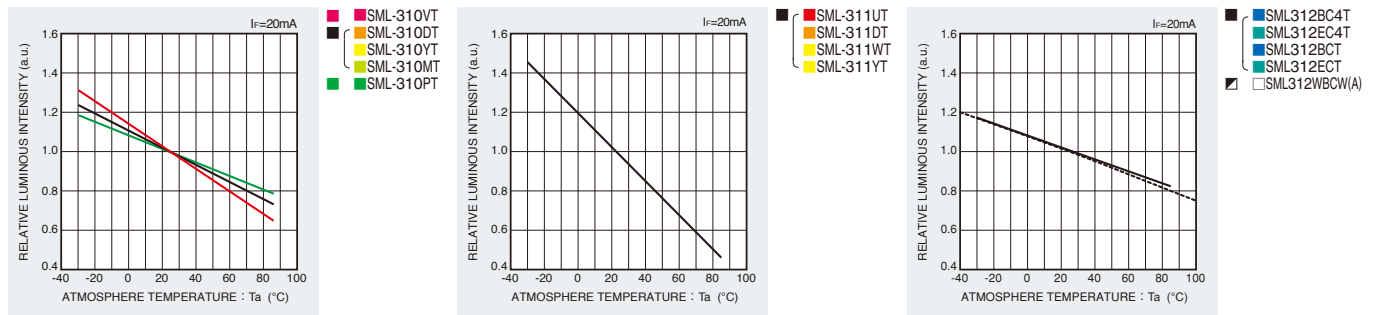


Electrical Characteristics Curves

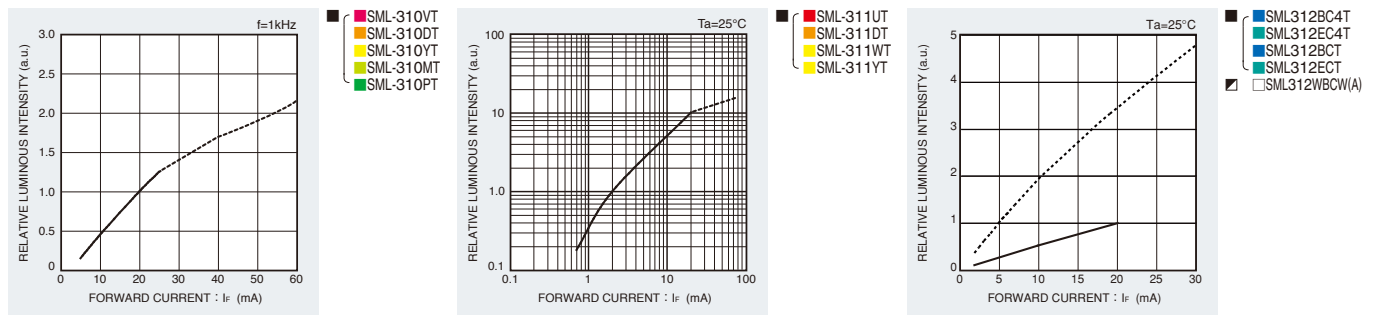
Forward Current-Forward Voltage



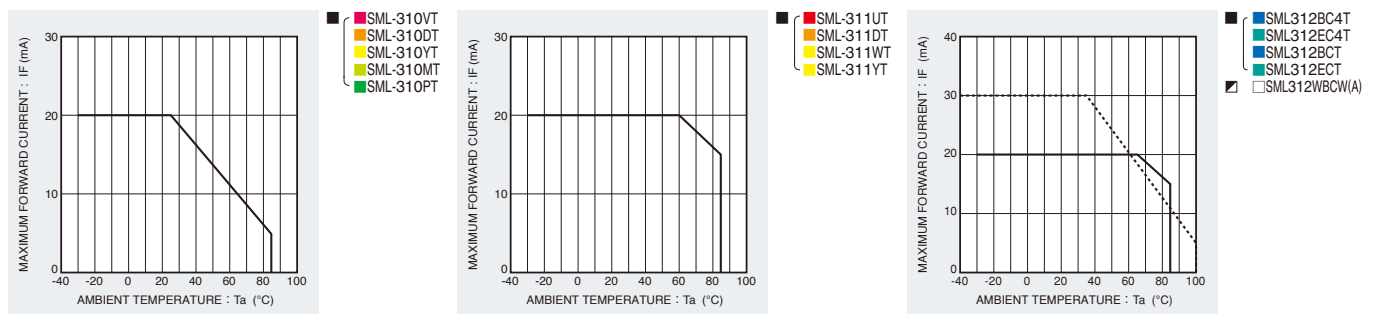
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Deratings



SML-31 series

Rank Reference of Brightness

■ Red (V, U)

(Ta=25°C, If=20mA)

	Package size(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
Mini-mold Chip LEDs	1608	0.8	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
			SML-311UT ^{※/※1}															
			SML-310VT [※]															

■ Orange (D)

(Ta=25°C, If=2mA)

	Package size(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
Mini-mold Chip LEDs	1608	0.8	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
			SML-311DT															

■ Yellow (Y, W)

(Ta=25°C, If=20mA)

	Package size(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
Mini-mold Chip LEDs	1608	0.8	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
			SML-311YT ^{※/※1}															
			SML-311WT ^{※/※1}															
			SML-310YT [※]															

■ Green (M, P, E)

(Ta=25°C, If=20mA)

		Luminous Intensity (mcd)	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	
Package size(mm)	Height(mm)		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 1600	
Mini-mold Chip LEDs	1608	0.8	SML-310PT [※]						SML312EC4T [※]						SML312ECT [※]					
			SML-310MT [※]						SML312EC4T [※]						SML312ECT [※]					
			SML-310PT [※]						SML312EC4T [※]						SML312ECT [※]					
			SML-310MT [※]						SML312EC4T [※]						SML312ECT [※]					

■ Blue (B)

(Ta=25°C, If=20mA)

	Package size(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W
Mini-mold Chip LEDs	1608	0.8	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
			SML312BC4T														
			SML312BCT														

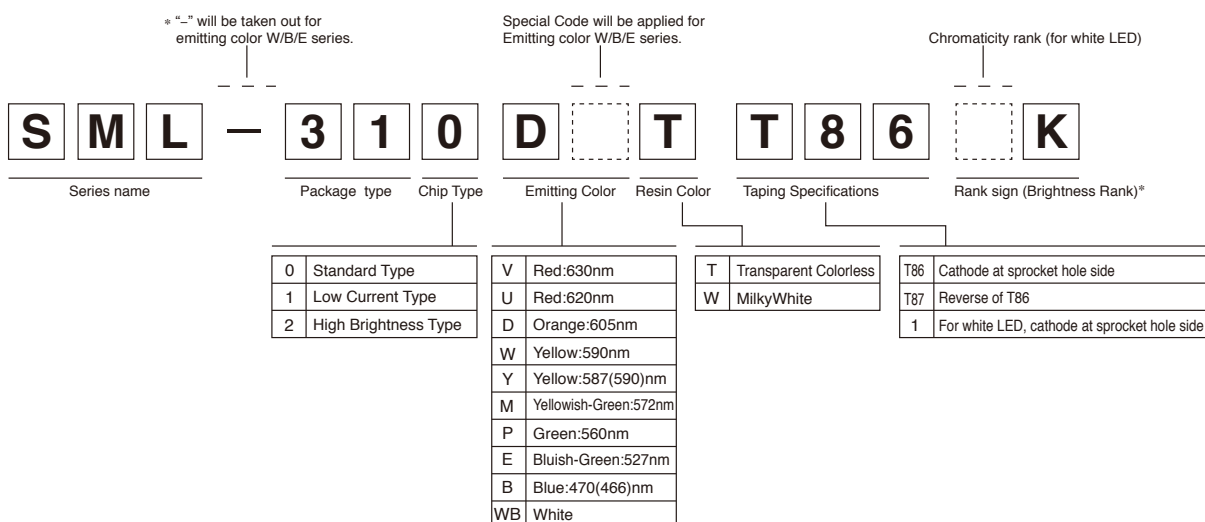
■ White (WB)

(Ta=25°C, If=5mA)

	Package size(mm)	Luminous Intensity (mcd)	P	Q	R	S	T	U	V	W	X1	X2	Y1	Y2	Z1
Mini-mold Chip LEDs	1608	0.8	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
			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.

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