

SML-M1 Series

20125(0805)
2.0 × 1.25mm (t=0.8mm)

Features

- Compact LED with reflector
- Die is located at the center of the package, achieving equivalent distribution of light emission.
- New emitting color, including the pastel colors available upon request.

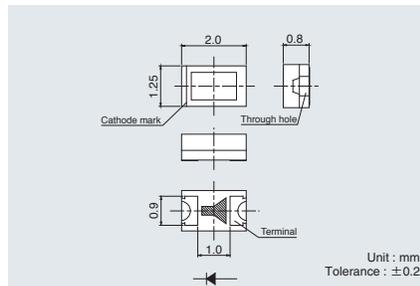


Specifications

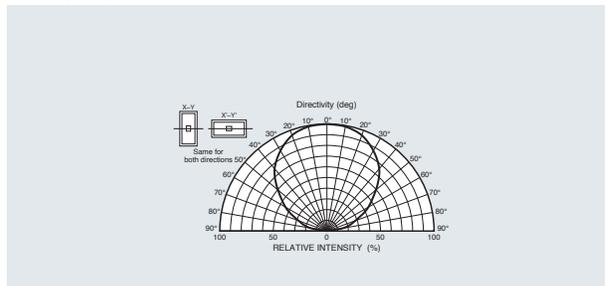
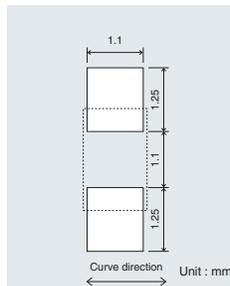
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)					Electrical and Optical Characteristics (Ta=25°C)															
			Power Dissipation Pd (mW)	Forward Current If (mA)	Peak Forward Current Ifp (mA)	Reverse Voltage Vr (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage Vf Typ. (V)	Forward Current If (mA)	Reverse Current Ir Max. (μA)	Reverse Voltage Vr (V)	Dominant Wavelength λ D Min.*2 (nm)	Typ. (nm)	Max.*2 (nm)	Forward Current If (mA)	Luminous Intensity Iv Min. (mcd)	Typ. (mcd)	If (mA)				
■ SML-M13VT	AlGaInP on GaAs	Red	63	25	100*1	5	-40 to +85	-40 to +100	2.0	20*1	10	5	20	100	20	40	75	20					
■ SML-M13UT																			625	630	635	63	120
■ SML-M13DT		Orange																	602	605	608	200	20
■ SML-M13YT		Yellow																	587	590	593	160	20
■ SML-M13MT		Yellowish Green																	569	572	575	45	25
■ SML-M13PT	Green	557	560	563	16	6.3																	
■ SMLM12BC7T	InGaN on SiC	Blue	66	20			-30 to +85		2.9	5*1	100		465	470	475	5	-	36	5				
□ SMLM12WBC7W		White																		(x, y) (0.30, 0.30)	56	100	

*1: Duty1/10 1KHz *2: Reference

Dimensions

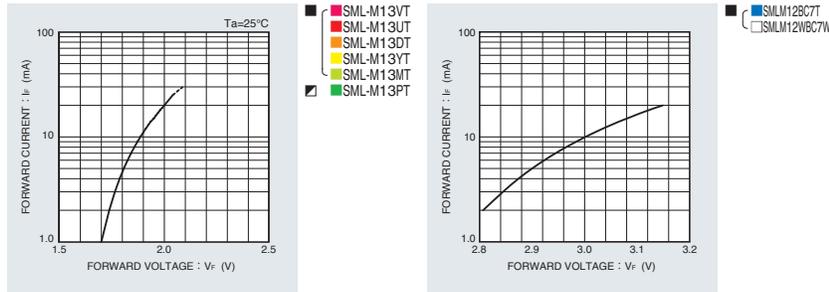


Recommended Solder Pattern Viewing Angle

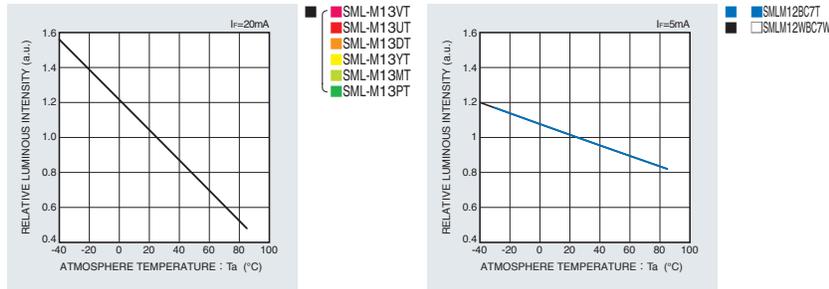


Electrical Characteristics Curves

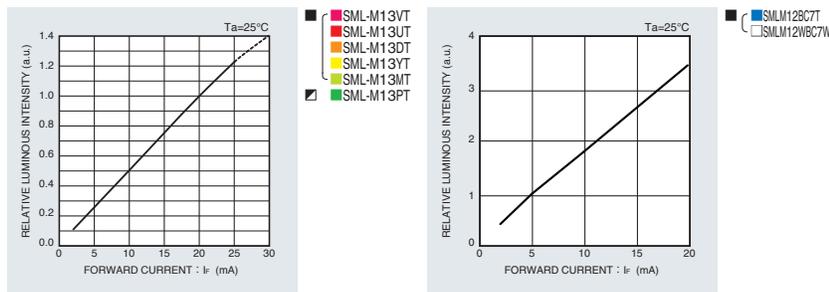
Forward Current-Forward Voltage



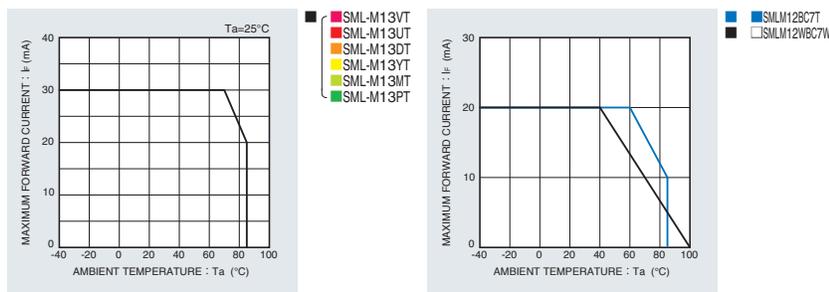
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



SML-M1 Series

Rank Reference of Brightness

Red (V, U)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	K	L	M	N	P	Q	R	S	T	U	V	W	X
			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
Small LEDs with reflector	20125	0.8								SML-M13VT					
										SML-M13UT					

Orange (D)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	K	L	M	N	P	Q	R	S	T	U	V	W	X
			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
Small LEDs with reflector	20125	0.8												SML-M13DT	

Yellow (Y)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	K	L	M	N	P	Q	R	S	T	U	V	W	X
			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
Small LEDs with reflector	20125	0.8												SML-M13YT	

Green (M, P)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	K	L	M	N	P	Q	R	S	T	U	V	W	X
			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
Small LEDs with reflector	20125	0.8			SML-M13PT		SML-M13MT								

Blue (B)

(Ta=25°C, If=5mA)

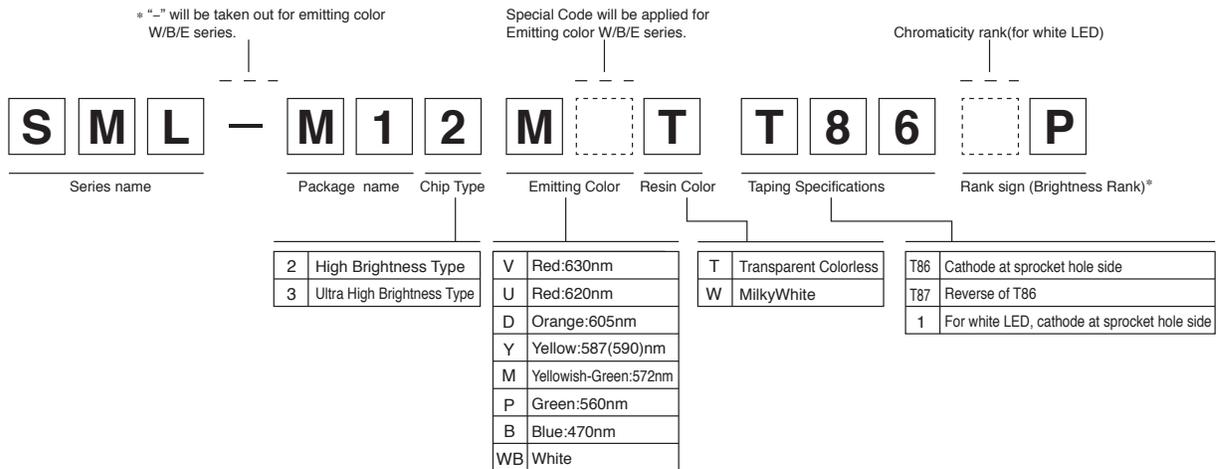
Package size(mm)	Height(mm)	Luminous Intensity (mcd)	K	L	M	N	P	Q	R	S	T	U	V	W
			3.6 to 5.6	5.6 to 9.0	9 to 14	14 to 22	22 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900
Small LEDs with reflector	20125	0.8					SMLM12BC7T							

White (WB)

(Ta=25°C, If=5mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	P	Q	R	S	T	U	V	W
			25 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900
Small LEDs with reflector	20125	0.8			SMLM12WBC7W					

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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