

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.

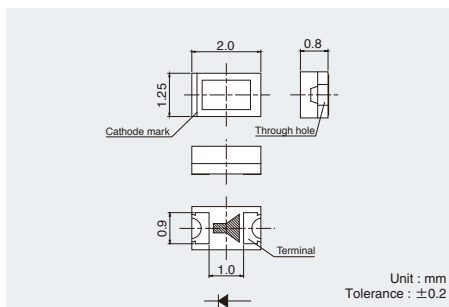


Specifications

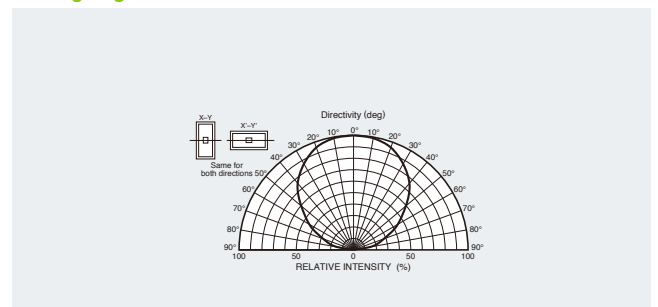
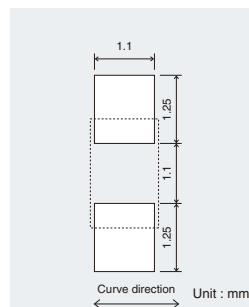
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)					Electrical and Optical Characteristics (Ta=25°C)											
			Power Dissipation Pd (mW)	Forward Current If (mA)	Peak Forward Current IFP (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tsig (°C)	Forward Voltage VF Typ. (V)	VF (mA)	Reverse Current IR Max. (μA)	VR (V)	Dominant Wavelength λ D (nm)			Luminous Intensity Iv (mcd)			
■ SML-M13VT	AlGaInP on GaAs	Red	63	25	100*1	5	-40 to +85	-40 to +100	2.0	20*1	10	5	625	630	635	20	40	75	20
■ SML-M13UT													615	620	625		63	120	
■ SML-M13DT		Orange											602	605	608		100	200	
■ SML-M13YT		Yellow											587	590	593		160		
■ SML-M13MT		Yellowish Green											569	572	575		25	45	
■ SML-M13PT	InGaN on SiC	Green	68	30			-30 to +85		2.2				557	560	563	5	6.3	16	5
■ SMLM12BC7T		Blue											465	470	475		-	36	
□ SMLM12WBC7W		White											(x, y)	(0.30, 0.30)	56		100		

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

Dimensions

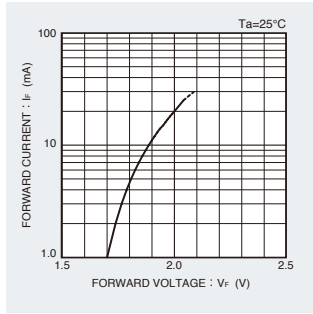


Recommended Solder Pattern Viewing Angle

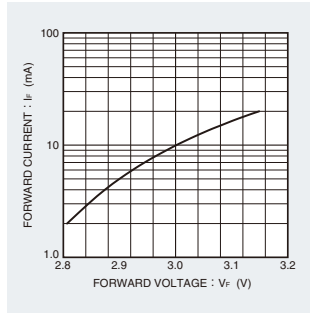


Electrical Characteristics Curves

Forward Current-Forward Voltage

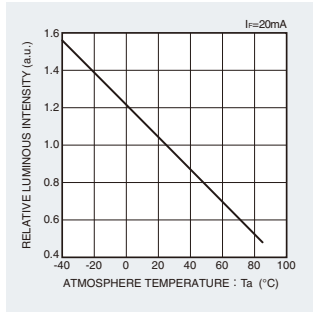


- SML-M13VT
- SML-M13UT
- SML-M13DT
- SML-M13YT
- SML-M13MT
- SML-M13PT

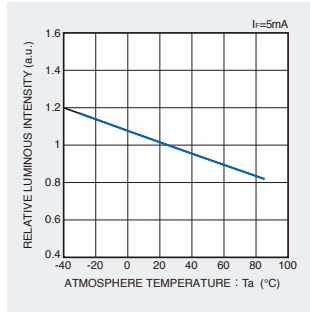


- SMLM12BC7T
- SMLM12WBC7W

Luminous Intensity-Atmosphere Temperature

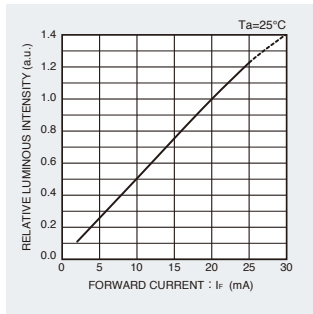


- SML-M13VT
- SML-M13UT
- SML-M13DT
- SML-M13YT
- SML-M13MT
- SML-M13PT

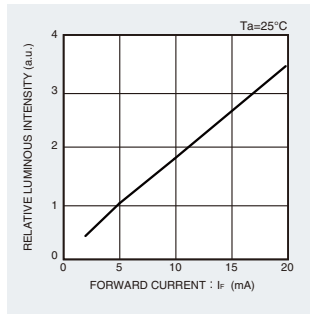


- SMLM12BC7T
- SMLM12WBC7W

Luminous Intensity-Forward Current

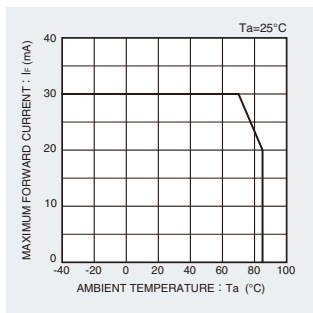


- SML-M13VT
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- SML-M13DT
- SML-M13YT
- SML-M13MT
- SML-M13PT

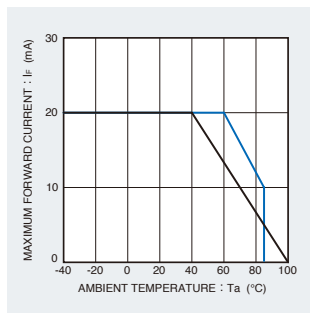


- SMLM12BC7T
- SMLM12WBC7W

Derating



- SML-M13VT
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- SML-M13PT



- SMLM12BC7T
- SMLM12WBC7W

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 1600
Small LEDs with reflector 20125 0.8				SML-M13PT		SML-M13MT								

Blue (B)

(Ta=25°C, If=5mA)

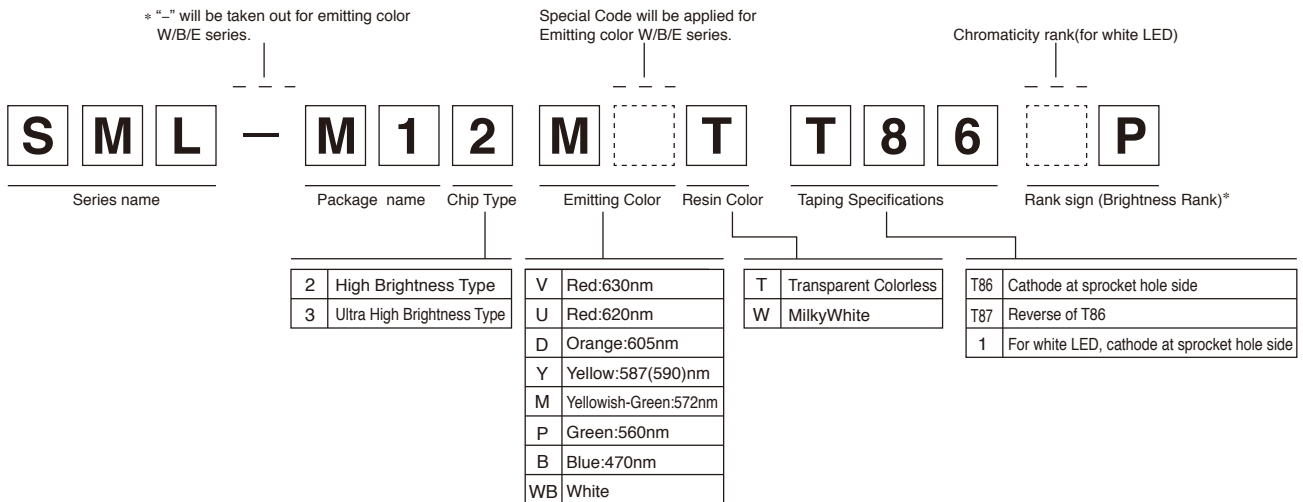
Package size(mm) Height(mm)	Luminous Intensity (mcd)	K	L	M	N	P	Q	R	S	T	U	V	W
		3.6 to 5.6	5.6 to 9.0	9 to 14	14 to 22	22 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900
Small LEDs with reflector 20125 0.8					SMLM12BC7T								

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.

Notes

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