

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.

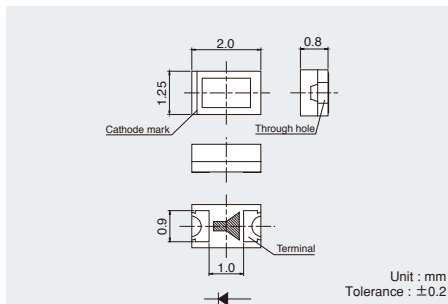


Specifications

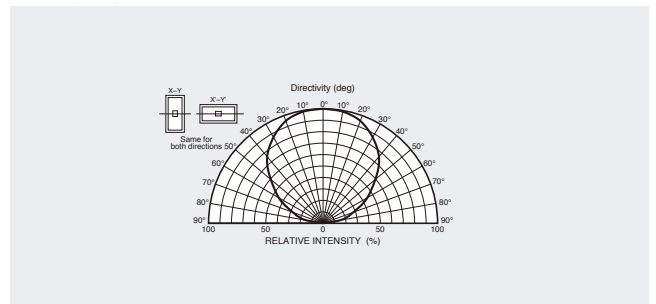
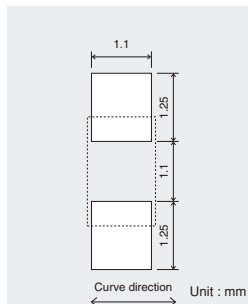
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)					Electrical and Optical Characteristics (Ta=25°C)											
			Power Dissipation Pd (mW)	Forward Current If (mA)	Peak Forward Current IFP (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage VF Typ. (V)	Forward Current If (mA)	Reverse Current Ir Max. (μA)	Reverse Voltage VR (V)	Dominant Wavelength λ D (nm)			Luminous Intensity Iv (mcd)			
■ SML-M13VT	AlGaInP	Red	75	30				2.0	20			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					-40 to +85						587	590	593		160		
■ SML-M13MT		Yellowish Green							2.2				569	572	575		25	45	
■ SML-M13PT		Green											557	560	563		6.3	16	
■ SMLM12BC7T	InGaN	Blue	66		100*1	5		2.9	5			465	470	475	5	14	36	5	
□ SMLM12WBC7W												White							
■ SMLM12ABC7W		Blue lagoon											(x, y) (0.17, 0.35)	56	71				
■ SMLM12CBC7W		Ice blue					-40 to +85						(x, y) (0.188, 0.280)	10	110	160	10		
■ SMLM12GBC7W		Blue green							3.0	10			(x, y) (0.238, 0.405)		110	180			
■ SMLM12SBC7W		Sapphire blue											(x, y) (0.19, 0.19)		90	180			

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

Dimensions

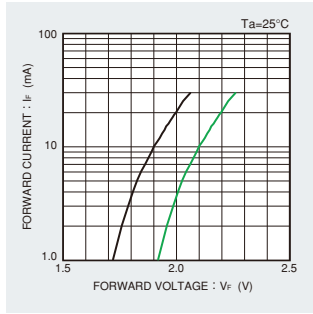


Recommended Solder Pattern Viewing Angle

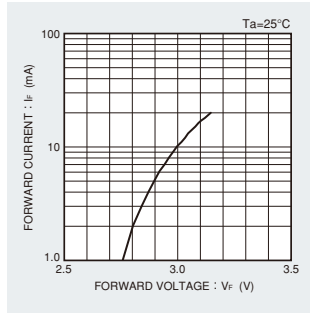


Electrical Characteristics Curves

Forward Current-Forward Voltage

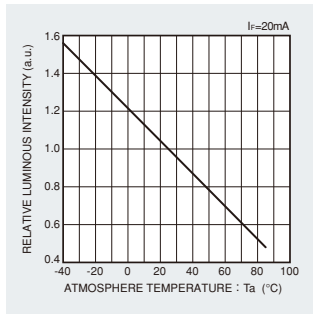


- SML-M13VT
- SML-M13UT
- SML-M13DT
- SML-M13YT
- SML-M13MT
- SML-M13PT

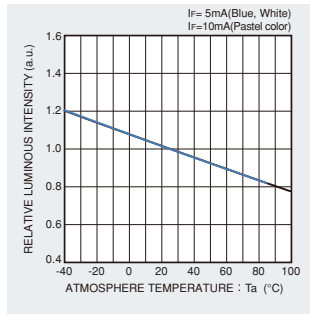


- SMLM12B8C7T
- SMLM12W8C7W
- SMLM12A8C7W
- SMLM12C8C7W
- SMLM12G8C7W
- SMLM12S8C7W

Luminous Intensity-Atmosphere Temperature

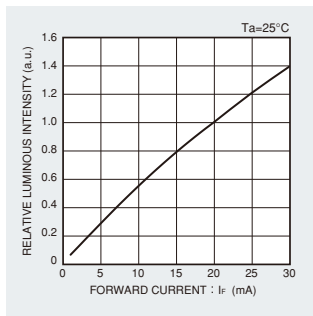


- SML-M13VT
- SML-M13UT
- SML-M13DT
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- SML-M13PT

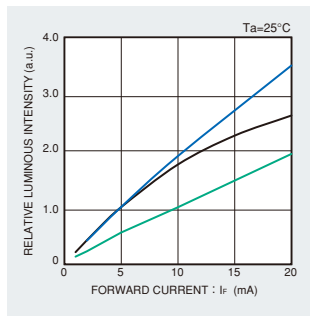


- SMLM12B8C7T
- SMLM12W8C7W
- SMLM12A8C7W
- SMLM12C8C7W
- SMLM12G8C7W
- SMLM12S8C7W

Luminous Intensity-Forward Current

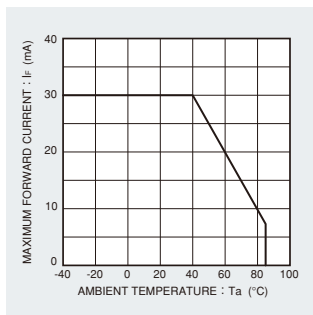


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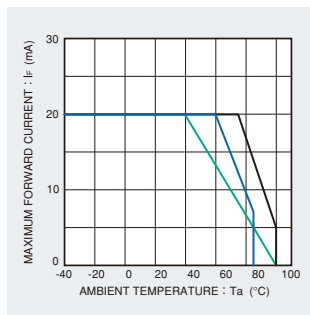


- SMLM12B8C7T
- SMLM12W8C7W
- SMLM12A8C7W
- SMLM12C8C7W
- SMLM12G8C7W
- SMLM12S8C7W

Derating



- SML-M13VT
- SML-M13UT
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- SML-M13PT



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- SMLM12W8C7W
- SMLM12A8C7W
- SMLM12C8C7W
- SMLM12G8C7W
- SMLM12S8C7W

SML-M1 series

Rank Reference of Brightness

Red (V, U)

Package structure	Package size	Height (mm)	Luminous Intensity I_f (mA)	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	
Reflector	20125	0.8	20						SML-M13VT								
									SML-M13UT								

Orange (D)

Package structure	Package size	Height (mm)	Luminous Intensity I_f (mA)	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	
Reflector	20125	0.8	20								SML-M13DT						

Yellow (Y)

Package structure	Package size	Height (mm)	Luminous Intensity I_f (mA)	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	
Reflector	20125	0.8	20								SML-M13YT						

Green (M, P)

Package structure	Package size	Height (mm)	Luminous Intensity I_f (mA)	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	
Reflector	20125	0.8	20			SML-M13PT			SML-M13MT								

Blue (B)

Package structure	Package size	Height (mm)	Luminous Intensity I_f (mA)	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	
Reflector	20125	0.8	5				SMLM12BC7T									

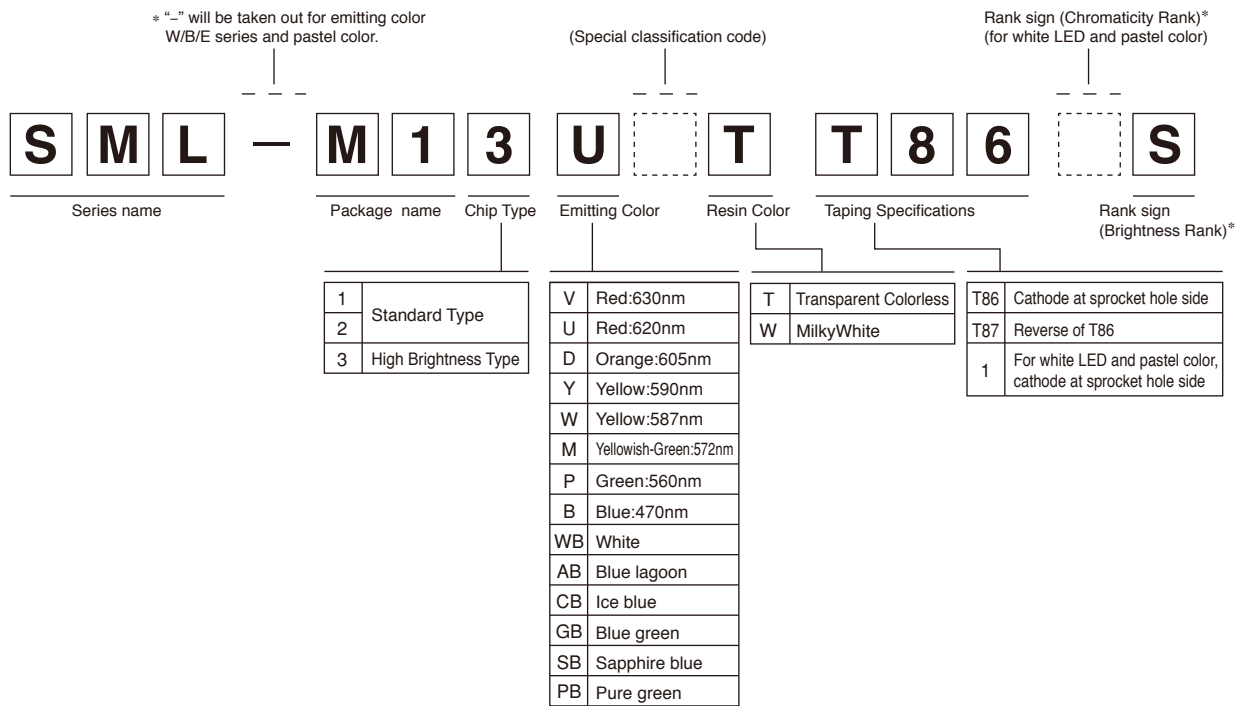
White (WB)

Package structure	Package size	Height (mm)	Luminous Intensity I_f (mA)	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	25 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900	
Reflector	20125	0.8	5								SMLM12WBC7W					

Pastel Color

Package structure	Package size	Height (mm)	Luminous Intensity I_f (mA)	Q1	Q2	R1	R2	S1	S2	T1	T2	U1	U2	V1	V2	W1	W2
				36 to 45	45 to 56	56 to 71	71 to 90	90 to 110	110 to 140	140 to 180	180 to 220	220 to 280	280 to 360	360 to 450	450 to 560	560 to 710	
Reflector	20125	0.8	10			SMLM12ABC7W				SMLM12CBC7W							
										SMLM12GBC7W							
										SMLM12SBC7W							

Part No. Construction



- * Concerning the Brightness rank
- Please refer to the rank chart above for luminous intensity classification.
- Please refer to the Specification sheet for color 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.
- * Please refer to the Specification sheet about Taping specification.

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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