

## 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.

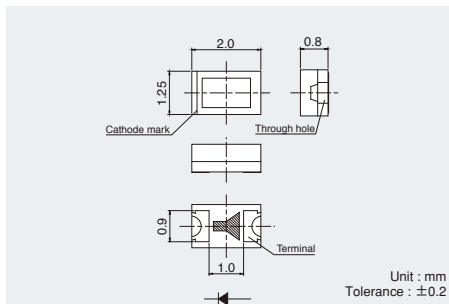


### Specifications

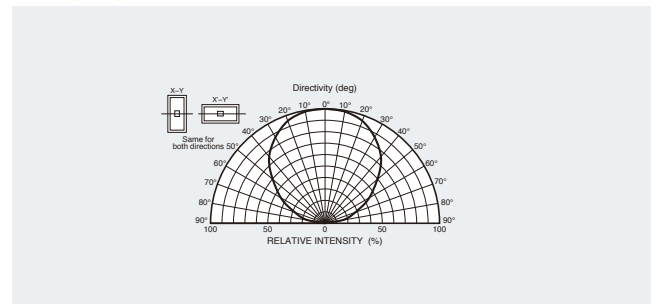
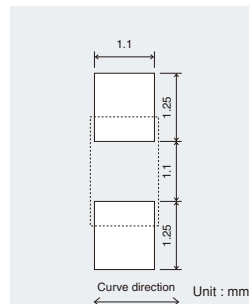
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)					Electrical and Optical Characteristics (Ta=25°C)										
			Power Dissipation Pd (mW)	Forward Current If (mA)	Peak Forward Current IFP (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage VF Typ. (V)	VF (mA)	Reverse Current IR Max. (μA)	VR (V)	Dominant Wavelength λ D (nm)			Luminous Intensity Iv (mcd)		
■ SML-M13VT	AlGaInP	Red	75	30	100*1	5	-40 to +100	2.0	20	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												587	590	593		160		
■ SML-M13MT		Yellowish Green										569	572	575		25	45	
■ SML-M13PT		Green										557	560	563		6.3	16	
■ SMLM12BC7T	InGaN	Blue	66	20	-40 to +100	-40 to +85	2.9	5	10	10	5	465	470	475	5	14	36	5
□ SMLM12WBC7W		White										(x, y) (0.30, 0.30)	56	100				
■ SMLM12ABC7W		Blue lagoon										(x, y) (0.17, 0.35)	56	71				
■ SMLM12CBC7W		Ice blue										(x, y) (0.188, 0.280)	10	110		160		
■ SMLM12GBC7W		Blue green										(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

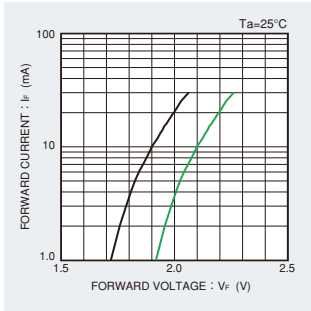


### Recommended Solder Pattern Viewing Angle

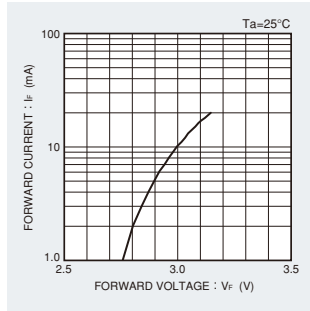


Electrical Characteristics Curves

Forward Current-Forward Voltage

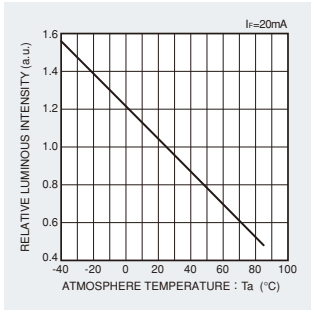


- SML-M13VT
- SML-M13UT
- SML-M13DT
- SML-M13YT
- SML-M13MT
- SML-M13PT

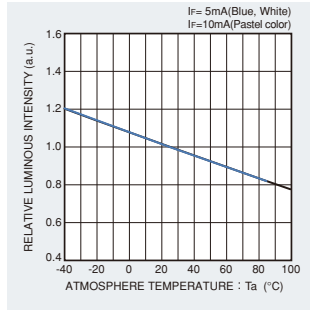


- SMLM12BCT7T
- SMLM12WBC7W
- SMLM12ABC7W
- SMLM12CBC7W
- SMLM12GBC7W
- SMLM12SBC7W

Luminous Intensity-Atmosphere Temperature

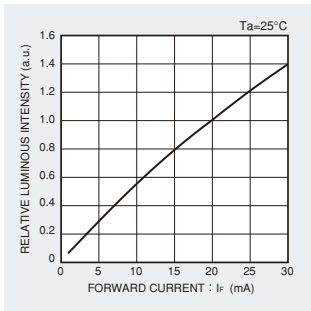


- SML-M13VT
- SML-M13UT
- SML-M13DT
- SML-M13YT
- SML-M13MT
- SML-M13PT

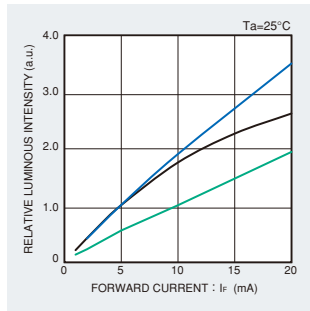


- SMLM12BCT7T
- SMLM12WBC7W
- SMLM12ABC7W
- SMLM12CBC7W
- SMLM12GBC7W
- SMLM12SBC7W

Luminous Intensity-Forward Current

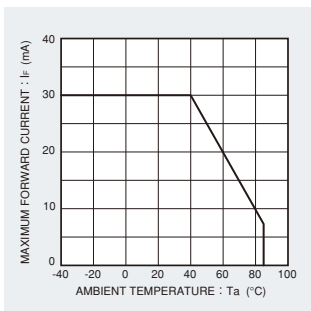


- SML-M13VT
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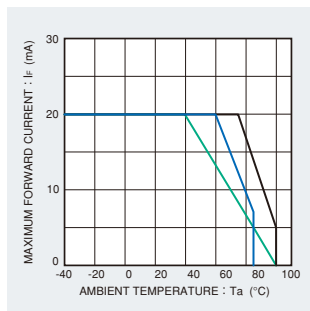


- SMLM12BCT7T
- SMLM12WBC7W
- SMLM12ABC7W
- SMLM12CBC7W
- SMLM12GBC7W
- SMLM12SBC7W

Derating



- SML-M13VT
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- SMLM12GBC7W
- SMLM12SBC7W

# 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								

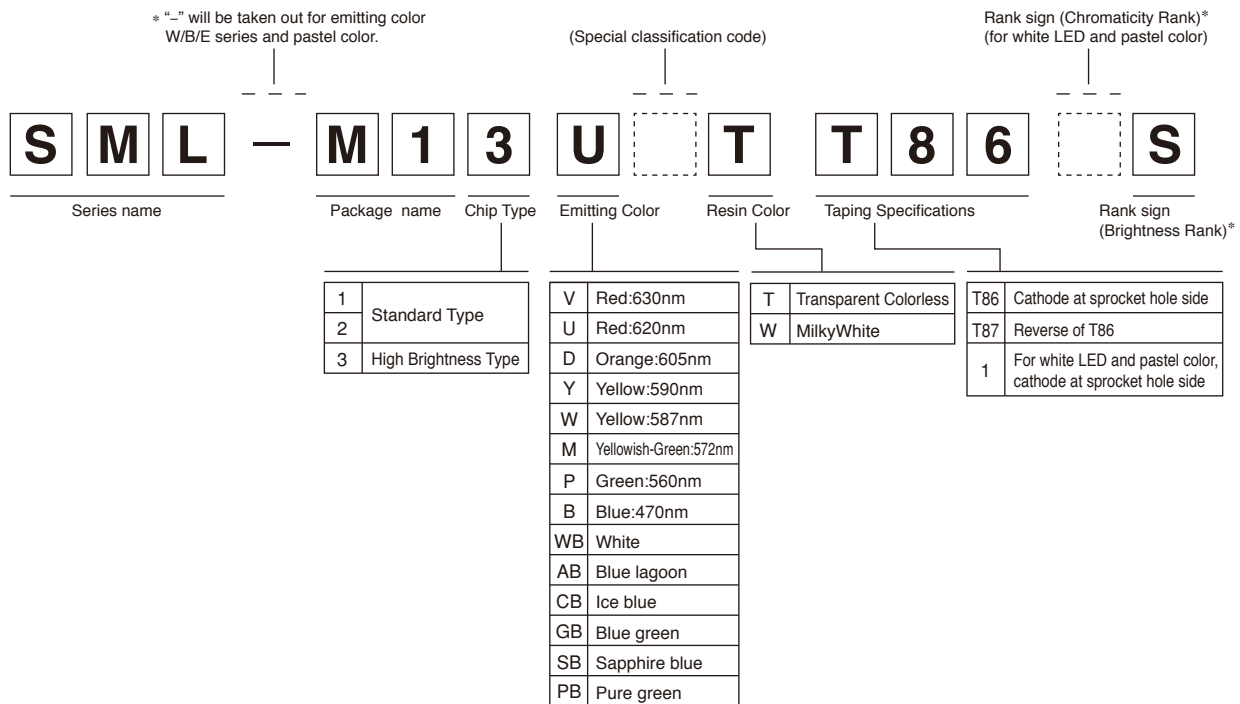
### White (WB)

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	710 to
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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