

# 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.

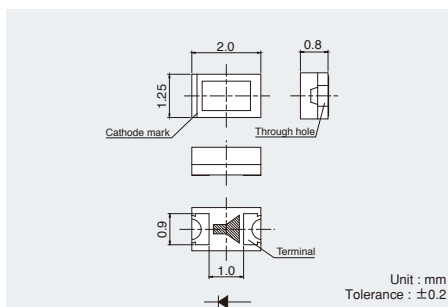


## Specifications

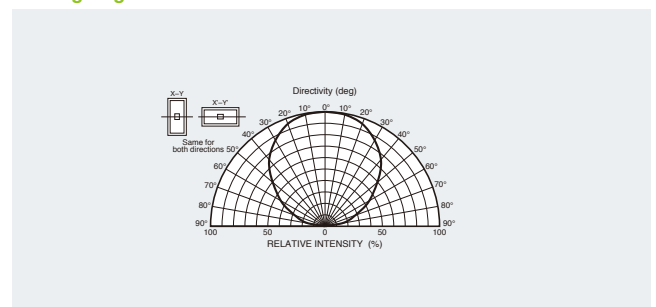
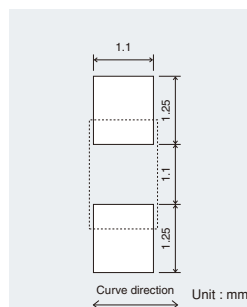
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)						Electrical and Optical Characteristics (Ta=25°C)											
			Power Dissipation Pd(mW)	Forward Current IF(mA)	Peak Forward Current IFP(mA)	Reverse Voltage VR(V)	Operating Temperature Topr(°C)	Storage Temperature Tstg(°C)	Forward Voltage VF		Reverse Current IR		Dominant Wavelength λD			Luminous Intensity Iv				
									Typ.(V)	IF(mA)	Max.(μA)	VR(V)	Min.*2 (nm)	Typ.(nm)	Max.*2 (nm)	IF(mA)	Min.(mcd)	Typ.(mcd)	IF(mA)	
■ 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	587	590	593			160												
■ SML-M13MT			Yellowish Green	81						2.2				569	572	575		25	45	
■ SML-M13PT		Green			100*1	5		-40 to +100			10	5	557	560	563		6.3	16		
■ SMLM12BC7T	InGaN	Blue	66	20					2.9	5	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	70				-40 to +85		3.0	10			(x, y) (0.188, 0.280)			10	110	160	10	
■ SMLM12GBC7W		Blue green											(x, y) (0.238, 0.405)				110	180		
■ SMLM12SBC7W	Sapphire blue	(x, y) (0.19, 0.19)												90	180					

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

## Dimensions

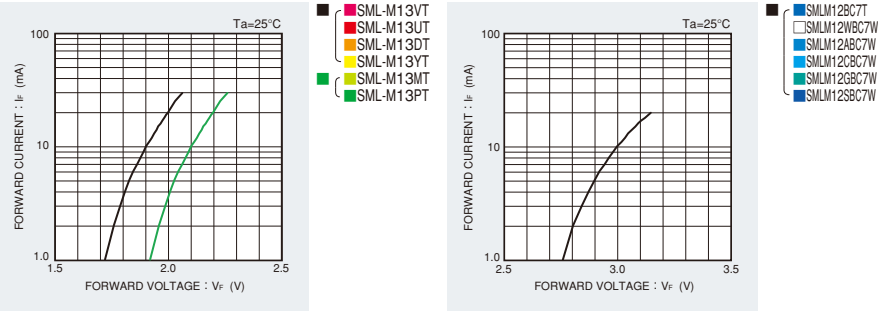


## Recommended Solder Pattern Viewing Angle

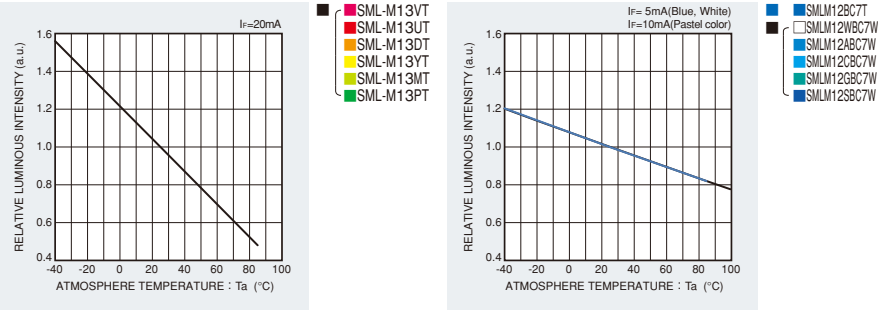


Electrical Characteristics Curves

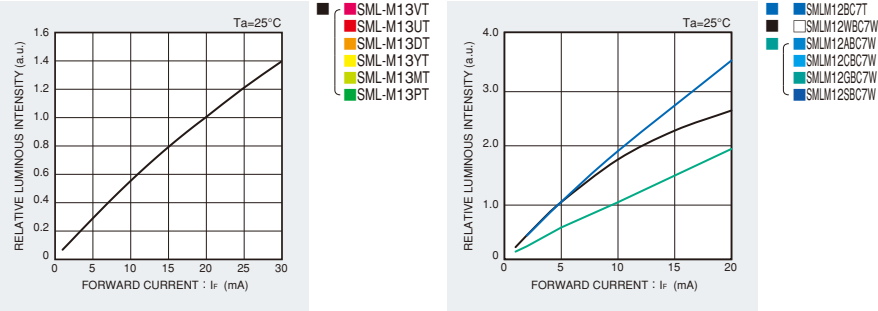
Forward Current-Forward Voltage



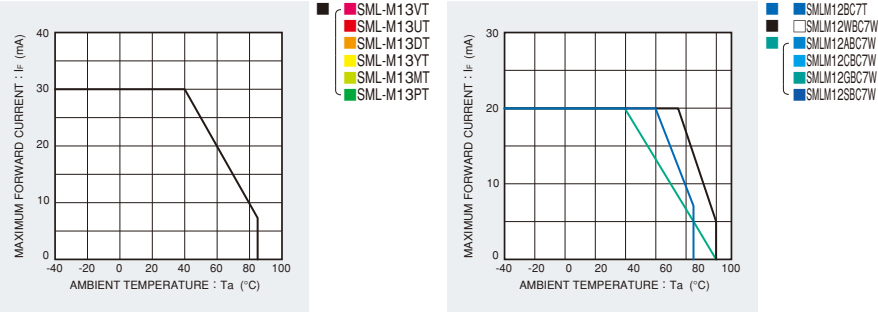
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



## Rank Reference of Brightness

### Red (V, U)

Package structure	Package size	Height (mm)	Luminous Intensity I <sub>r</sub> (mA)	K	L	M	N	P	Q	R	S	T	U	V	W	X
Reflector	20125	0.8	20	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-M13VT							
										SML-M13UT						

### Orange (D)

Package structure	Package size	Height (mm)	Luminous Intensity I <sub>r</sub> (mA)	K	L	M	N	P	Q	R	S	T	U	V	W	X
Reflector	20125	0.8	20	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-M13DT					

### Yellow (Y)

Package structure	Package size	Height (mm)	Luminous Intensity I <sub>r</sub> (mA)	K	L	M	N	P	Q	R	S	T	U	V	W	X
Reflector	20125	0.8	20	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-M13YT					

### Green (M, P)

Package structure	Package size	Height (mm)	Luminous Intensity I <sub>r</sub> (mA)	K	L	M	N	P	Q	R	S	T	U	V	W	X
Reflector	20125	0.8	20	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-M13PT				SML-M13MT						

### Blue (B)

Package structure	Package size	Height (mm)	Luminous Intensity I <sub>r</sub> (mA)	K	L	M	N	P	Q	R	S	T	U	V	W
Reflector	20125	0.8	5	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
							SMLM12BC7T								

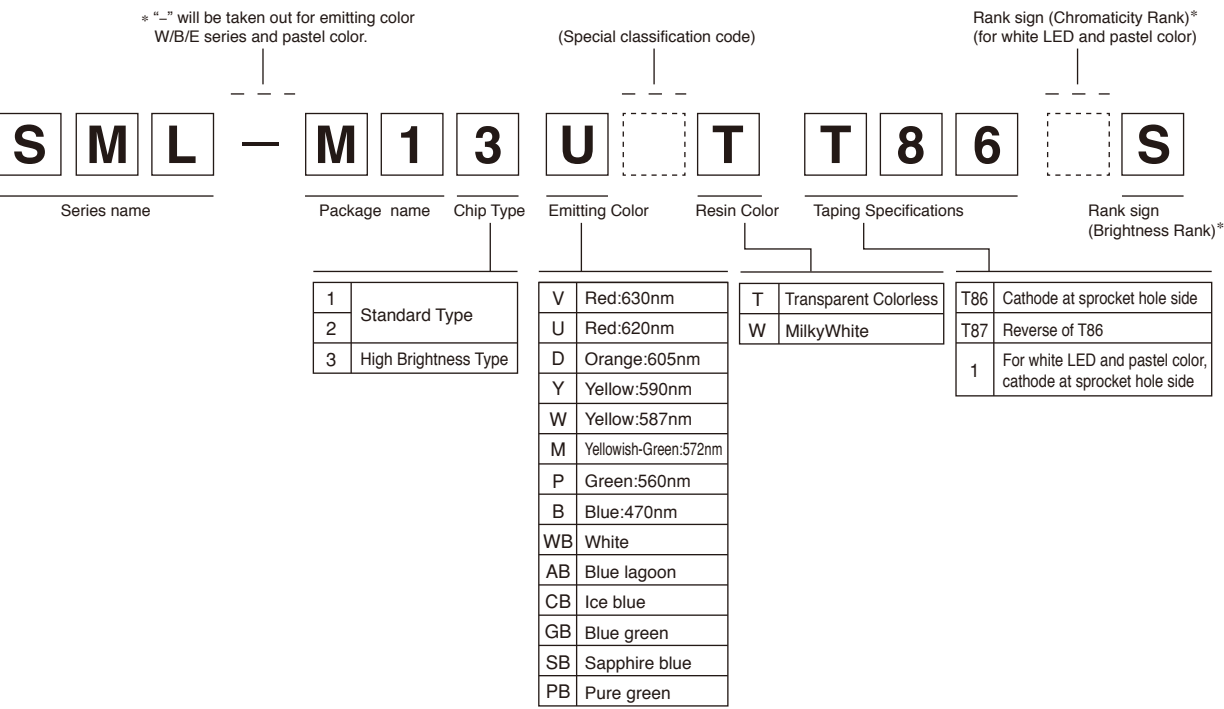
### White (WB)

Package structure	Package size	Height (mm)	Luminous Intensity I <sub>r</sub> (mA)	K	L	M	N	P	Q	R	S	T	U	V	W
Reflector	20125	0.8	5	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
										SMLM12WBC7W					

### Pastel Color

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