



# SML-T1 series

Actual size

1608(0603)

















 $1.6 \times 0.8\text{mm}(t=0.55\text{mm})$ 

## 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.

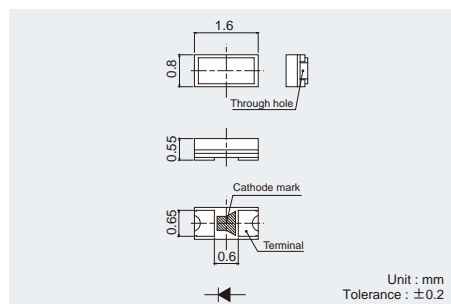
Color Type	V	U	D	Y	W
	M	P	F	B	WB
	GB	CB	AB	SB	HB

## Specifications

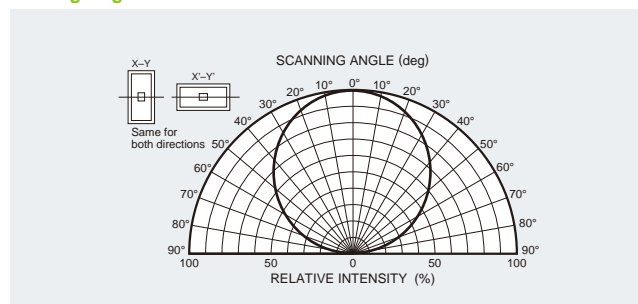
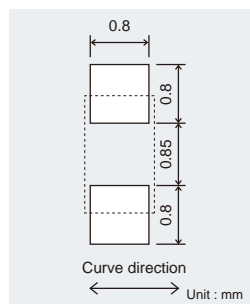
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25℃)						Electrical and Optical Characteristics (Ta=25℃)																				
			Power Dissipation Pd(mW)	Forward Current IF(mA)	Peak Forward Current IFP(mA)	Reverse Voltage VR(V)	Operating Temperature Topr(℃)	Storage Temperature Tstg(℃)	Forward Voltage VF Typ.(V)	IF(mA)	Reverse Current IR Max.(μA)	VR(V)	Dominant Wavelength λ D			IF(mA)	Luminous Intensity Iv												
														Min.*2 (nm)	Typ. (nm)	Max.*2 (nm)		Min. (mcd)	Typ. (mcd)	IF(mA)									
 SML-T13VT	AlGaInP	Red	75	30		5	-40 to +85		2.0	20	5		625	630	635	20	40	75	20										
 SML-T13UT													615	620	625		63	120											
 SML-T13DT		Orange																		602	605	608			200				
 SML-T13YT		Yellow																		587	590	593		100	160				
 SML-T13WT									584				587	590															
 SML-T13MT		Yellowish Green																		569	572	575		25	45				
 SML-T13FT		Green							81											2.2				561.5	564	566.5		16	32
 SML-T13PT																					557	560	563		6.3	16			
 SMLT12BC7T		Blue			100 *1		-40 to +100				10		464	470	476		14	28											
 SMLT12WBC7W		White	66						2.9	5			(x, y) (0.30, 0.30)			5	36	90	5										
 SMLT12WBC8CW(A)		White				12						12	(x, y) (0.30, 0.28)				71	120											
☆  SMLT12ABC7W	InGaN	Blue Lagoon		20										(x, y) (0.17, 0.35)				56	110										
☆  SMLT12CBC7W		Ice Blue						-40 to +100							(x, y) (0.188, 0.280)				110	160									
☆  SMLT12GBC7W		Blue Green	70			5			3.0	10	5		(x, y) (0.238, 0.405)			10	140	220	10										
 SMLT12SBC7W		Sapphire Blue											(x, y) (0.19, 0.19)					110											
☆  SMLT12HBC8W		Pink											(x, y) (0.310, 0.235)				56	140											

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

## Dimensions

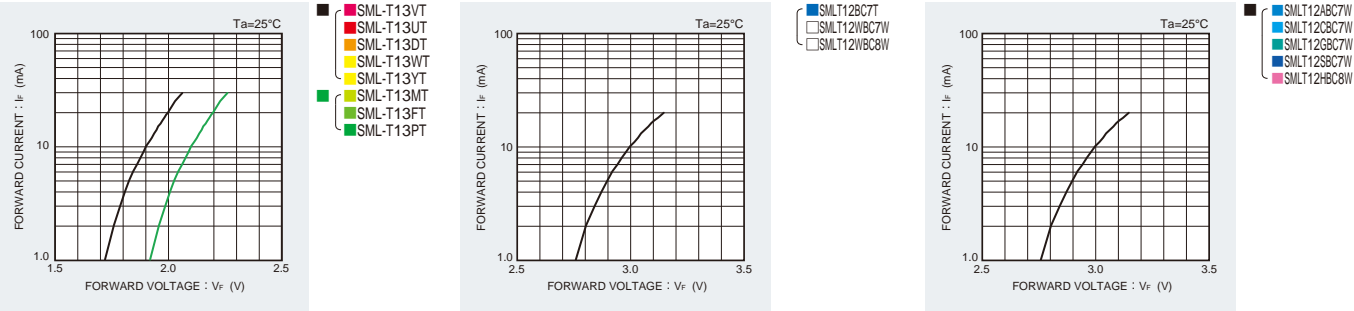


## Recommended Solder Pattern Viewing Angle

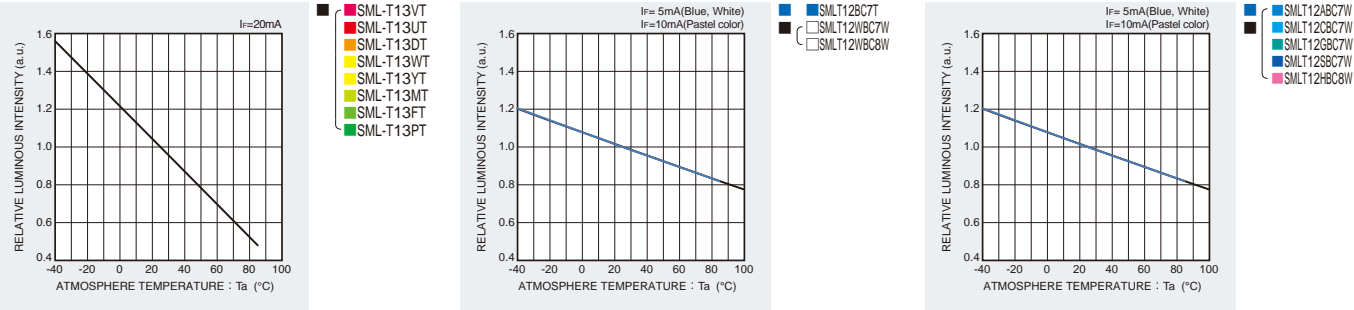


Electrical Characteristics Curves

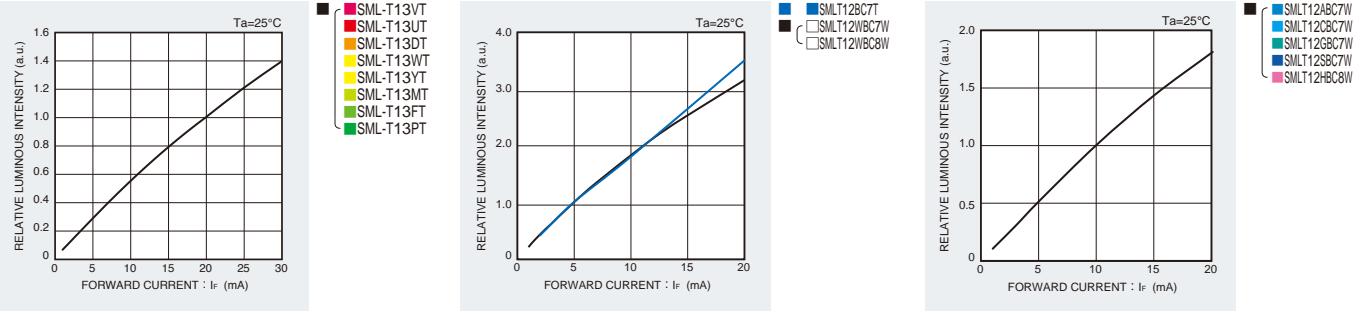
Forward Current-Forward Voltage



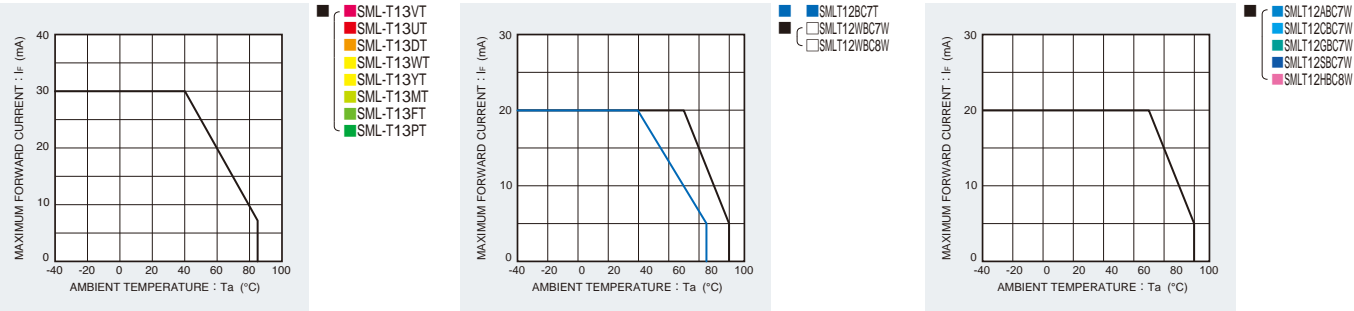
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



# SML-T1 series

## Rank Reference of Brightness

### Red (V, U)

Package structure	Package size	Height (mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Z
Reflector	1608	0.55	20	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	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	1600 to 2500	2500 to 4000
													SML-T13VT								
													SML-T13UT								

### Orange (D)

Package structure	Package size	Height (mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y
Reflector	1608	0.55	20	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	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	1600 to 2500
															SML-T13DT					

### Yellow (Y, W)

Package structure	Package size	Height (mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y
Reflector	1608	0.55	20	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	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	1600 to 2500
														SML-T13YT						
														SML-T13WT						

### Green (M, P, F)

Package structure	Package size	Height (mm)	Luminous Intensity (mcd)	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y
Reflector	1608	0.55	20	0.63 to 1.0	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	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	1600 to 2500
										SML-T13PT			SML-T13MT								
											SML-T13FT										

### Blue (B)

Package structure	Package size	Height (mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
Reflector	1608	0.55	5	0.9 to 1.4	1.4 to 2.2	2.2 to 3.6	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	900 to 1400
										SMLT12BC7T									

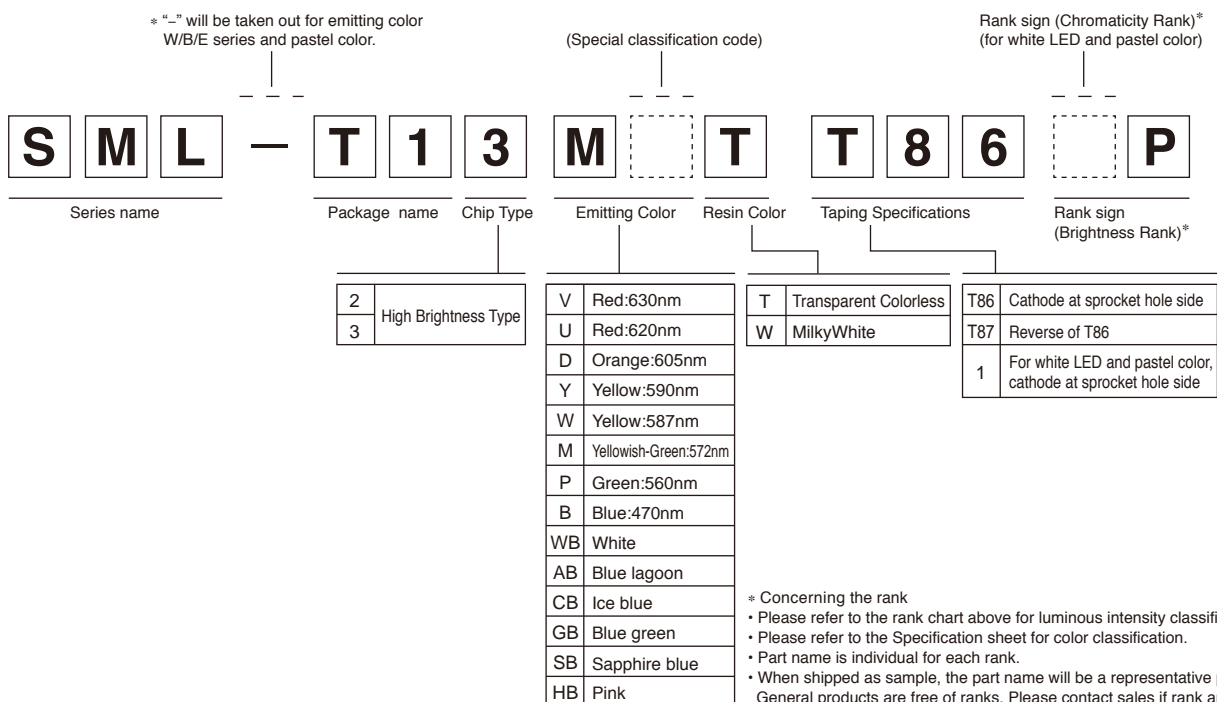
### White (WB)

Package structure	Package size	Height (mm)	Luminous Intensity (mcd)	M	N	P	Q	R	S	T	U	V	W	X	Y	Z
Reflector	1608	0.55	5	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	900 to 1400	1400 to 2200	2200 to 3600
							SMLT12WBC7W									
							SMLT12WBC8W									

### Pastel Color

Package structure	Package size	Height (mm)	Luminous Intensity (mcd)	M	N	P	Q	R	S	T	U	V	W	X	Y	Z
Reflector	1608	0.55	10	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	900 to 1400	1400 to 2200	2200 to 3600
								SMLT12ABC7W								
									SMLT12CBC7W							
										SMLT12GBC7W						
								SMLT12SBC7W								
								SMLT12HBC8W								

## Part No. Construction



## 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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- 3) Although ROHM is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors.  
Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. ROHM shall have no responsibility for any damages arising out of the use of our Products beyond the rating specified by ROHM.
- 4) Examples of application circuits, circuit constants and any other information contained herein are provided only to illustrate the standard usage and operations of the Products. The peripheral conditions must be taken into account when designing circuits for mass production.
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