

SML-D1 Series

EXCELED™

1608(0603)
1.6 × 0.8mm (t=0.55mm)

Features

- Original device technology enables high brightness and high reliability

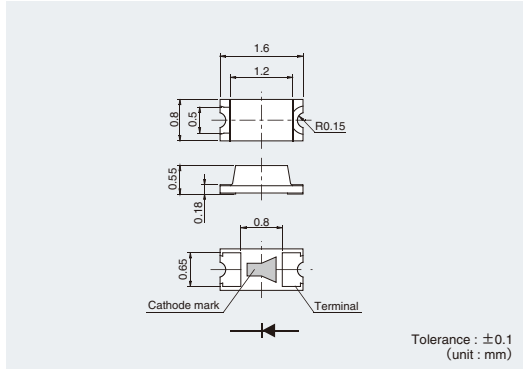


Specifications

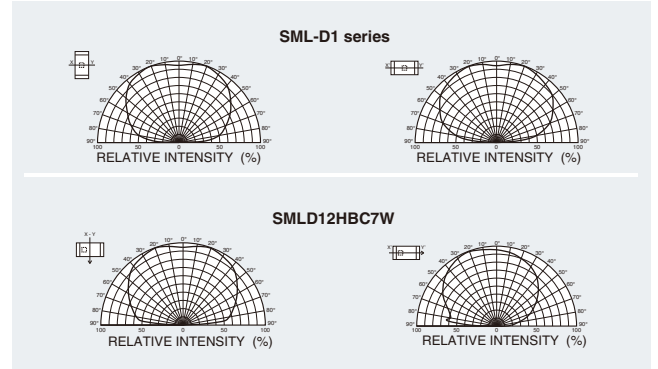
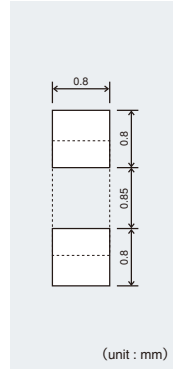
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)					Electrical and Optical Characteristics (Ta=25°C)											
			Power Dissipation PD (mW)	Forward Current IF (mA)	Peak Forward Current IFF (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tsig (°C)	Forward Voltage VF (V)		Reverse Current IR (μA)		Dominant Wavelength λD (nm)			Luminous Intensity Iv (mcd)			
								Typ.	IF (mA)	Max.	VR (V)	Min.*2	Typ.*2	Max.*2	IF (mA)	Min.	Typ.	IF (mA)	
■ SML-D12V8W	AlGaInP on GaAs	Red	54	20	100*1	5	-40 to +85	-40 to +100	2.2	20	10	4	625	630	635	20	16	40	20
■ SML-D12U8W		Red											615	620	625		25	63	
■ SML-D12D8W		Orange											602	605	608		40	100	
■ SML-D12Y8W		Yellow											587	590	593		25	63	
■ SML-D12M8W		Yellowish Green											569	572	575		10	25	
■ SML-D12P8W		Green											557	560	563		2.5	6.3	
■ SMLD12HBC7W	InGaN	Pink	78					2.9	5		5	(x, y)	(0.47, 0.25)	5	9.0	22	5		

* 1: Duty 1/10, 1kHz / * 2: Reference

Dimensions



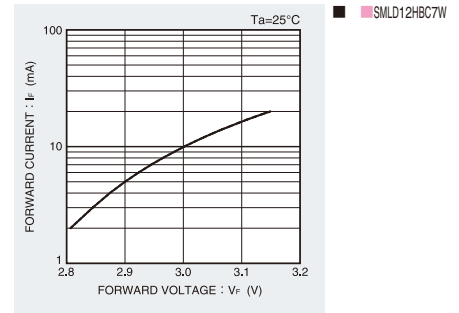
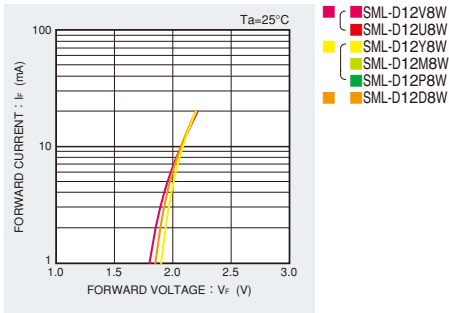
Recommended Solder Pattern Viewing Angle



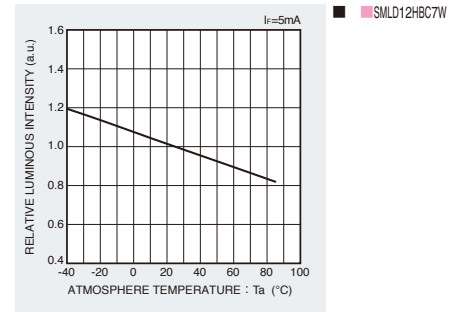
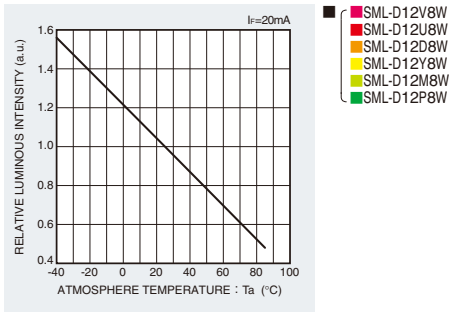
EXCELED™ is ROHME's pending trademark.

Electrical Characteristics Curves

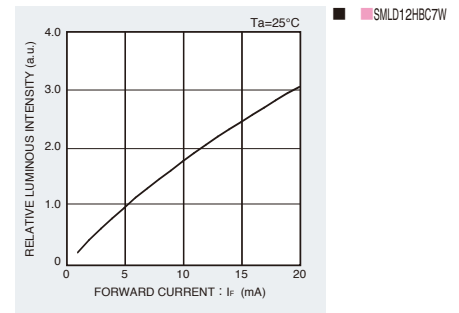
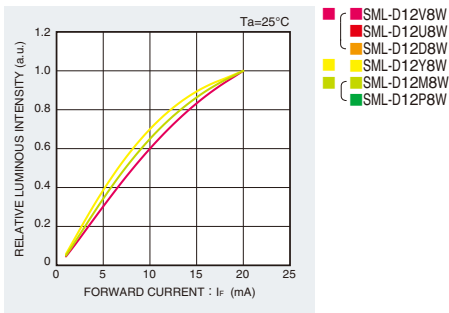
Forward Current-Forward Voltage



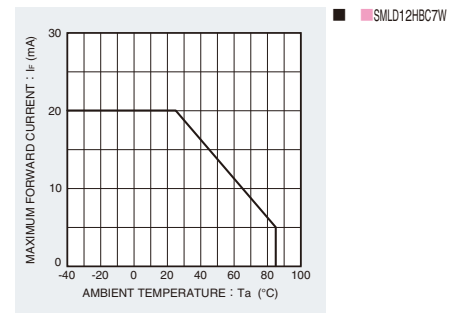
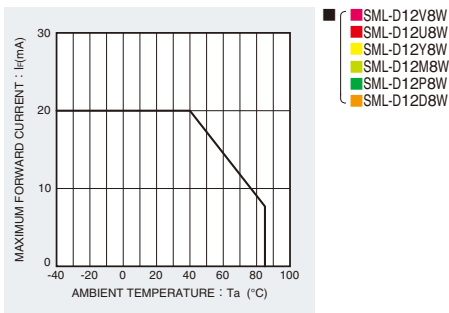
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



SML-D1 Series

Rank Reference of Brightness

Red (V, U)

(Ta=25°C, If=20mA)

Package size(mm) Height(mm)	Luminous Intensity (mcd)	H	J	K	L	M	N	P	Q	R	S	T	U	
		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	
Mini-mold Chip LEDs 1608	0.55	SML-D12V8W							SML-D12U8W					

Orange (D)

(Ta=25°C, If=20mA)

Package size(mm) Height(mm)	Luminous Intensity (mcd)	H	J	K	L	M	N	P	Q	R	S	T	U	
		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	
Mini-mold Chip LEDs 1608	0.55									SML-D12D8W				

Yellow (Y)

(Ta=25°C, If=20mA)

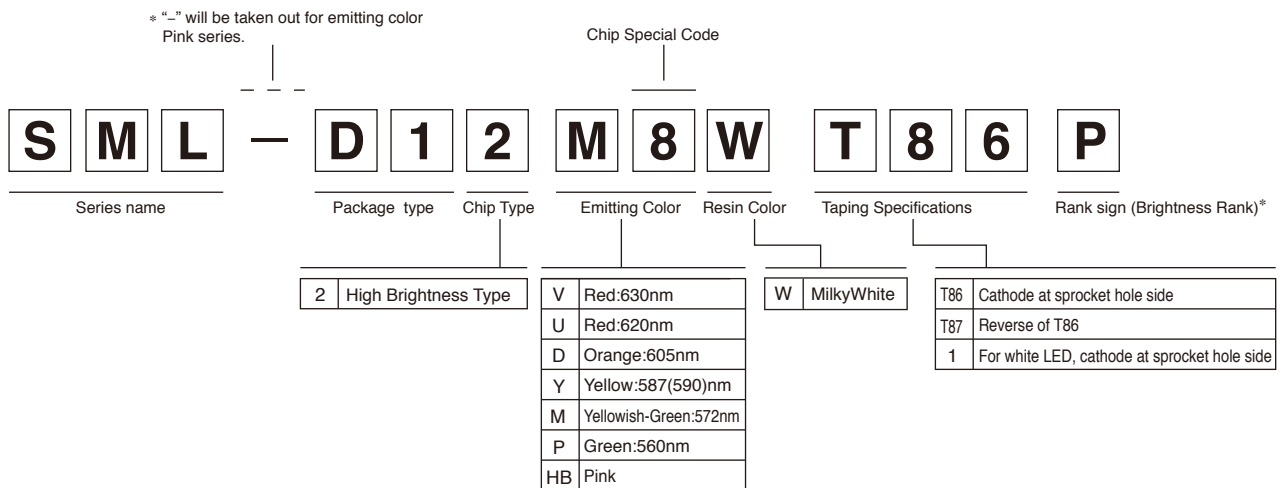
Package size(mm) Height(mm)	Luminous Intensity (mcd)	H	J	K	L	M	N	P	Q	R	S	T	U	
		1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	
Mini-mold Chip LEDs 1608	0.55								SML-D12Y8W					

Green (M, P)

(Ta=25°C, If=20mA)

Package size(mm) Height(mm)	Luminous Intensity (mcd)	H	J	K	L	M	N	P	Q	R	S	T	U
		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
Mini-mold Chip LEDs 1608	0.55	SML-D12P8W				SML-D12M8W							

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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