

SML-D1 Series

EXCELED™

1608(0603)
1.6 × 0.8mm (t=0.55mm)

Features

- Original device technology enables high brightness and high reliability.

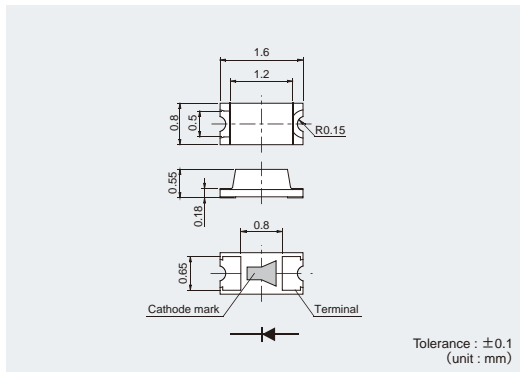


Specifications

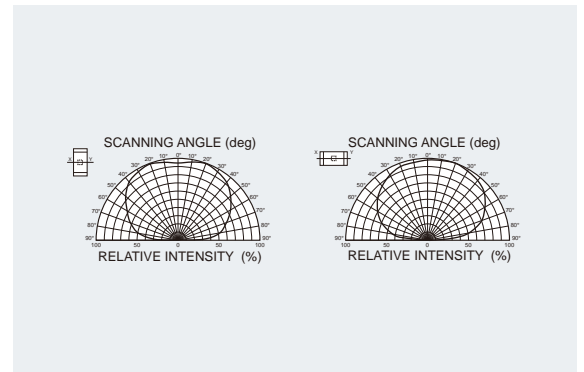
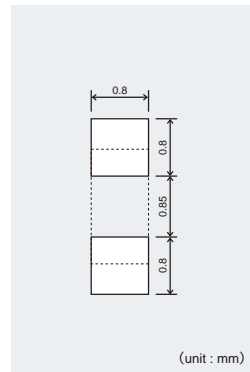
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)						Electrical and Optical Characteristics (Ta=25°C)									
			Power Dissipation PD (mW)	Forward Current IF (mA)	Peak Forward Current IFP (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage VF Typ. (V)	IF (mA)	Reverse Current IR Max. (μA)	VR (V)	Dominant Wavelength λD (nm)			Luminous Intensity Iv (mcd)		
■ SML-D12V8W	AlGaInP on GaAs	Red	54	20	100*1	5	-40 to +85	-40 to +100	2.2	20	10	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	
■ SML-D13L8W		Red	50	52	100*1	5	-40 to +85	-40 to +100	2.0	20	10	630	635	640	20	16	22	20
☆ ■ SML-D13V8W		Red	625									630	635	25		48		
■ SML-D13U8W		Red	615									620	625	40		70		
☆ ■ SML-D13D8W		Orange	54	20	100*1	5	-40 to +85	-40 to +100	2.1	20	10	602	605	608	20	63	110	20
■ SML-D13Y8W		Yellow										587	590	593		63	100	
■ SML-D13M8W		Yellowish Green										568	572	574		16	40	
☆ ■ SML-D13P8W	Green	557	560	563	4	7.2												

* 1: Duty 1/10, 1kHz / * 2: Reference
☆: Under development

Dimensions



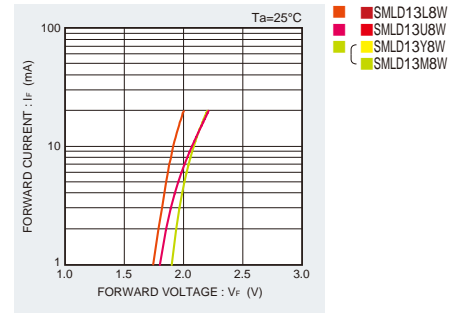
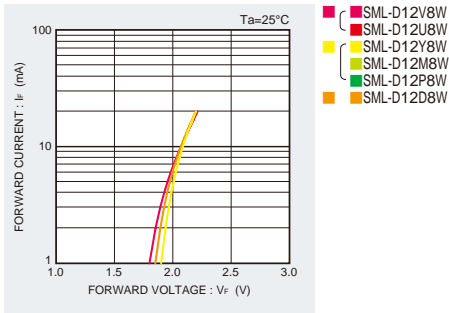
Recommended Solder Pattern Viewing Angle



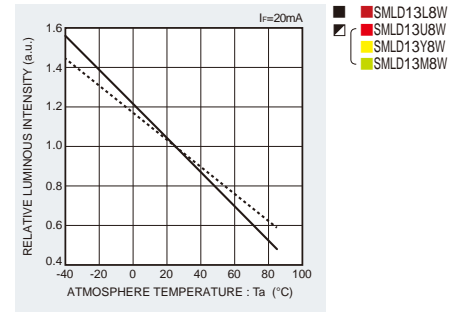
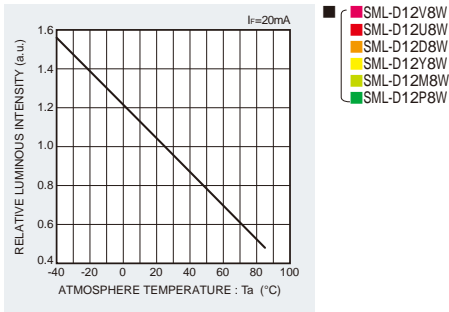
EXCELED™ is ROHME's pending trademark.

Electrical Characteristics Curves

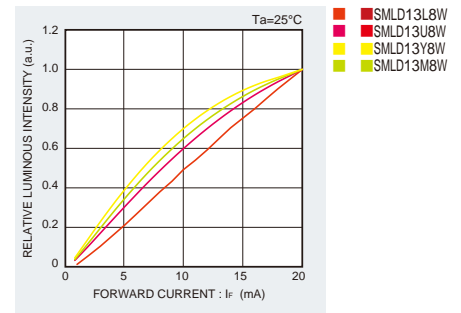
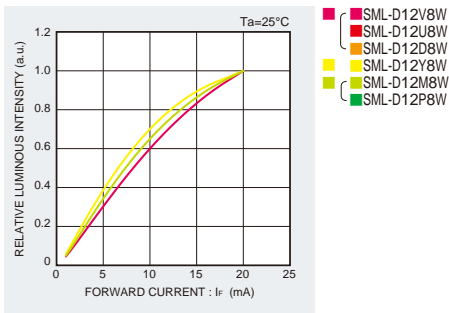
Forward Current-Forward Voltage



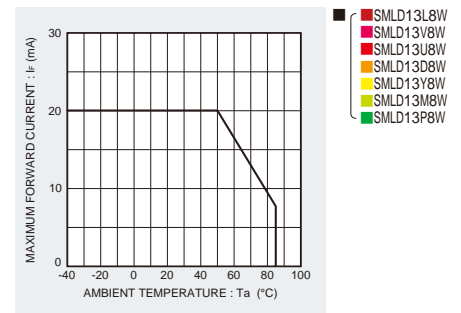
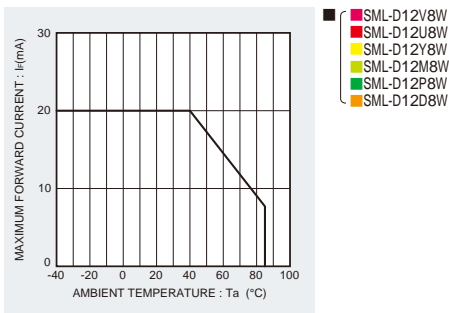
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



SML-D1 Series

Rank Reference of Brightness

Red (L, 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-D13L8W											
			SML-D13V8W											
			SML-D13U8W											
			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-D13D8W											
			SML-D12D8W											

Yellow (Y)

(Ta=25°C, If=20mA)

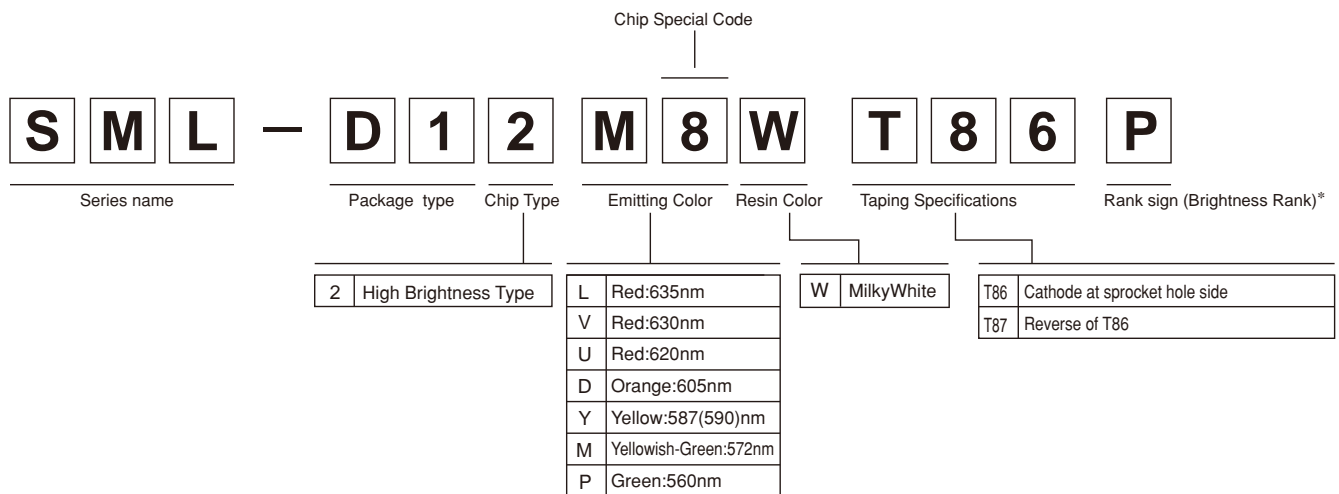
Package size(mm)	Height(mm)	Luminous Intensity (mcd)	H	J	K	L	M	N	P	Q	R	S	T	U
			1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400
Mini-mold Chip LEDs	1608	0.55	SML-D13Y8W											
			SML-D12Y8W											

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-D13P8W											
			SML-D13M8W											
			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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