

SML-D1 Series

EXCELED™














1608(0603)
1.6×0.8mm(t=0.55mm)

Features

- Original device technology enables high brightness and high reliability.

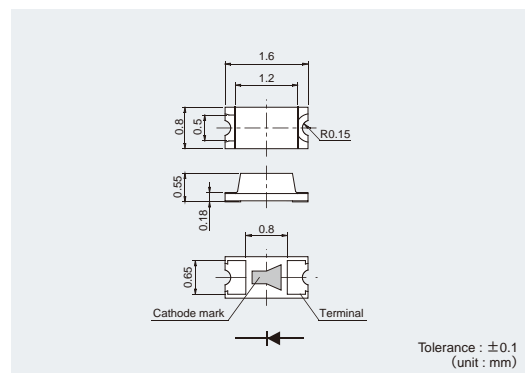
Color Type	L	V	U
D	Y	M	P

Specifications

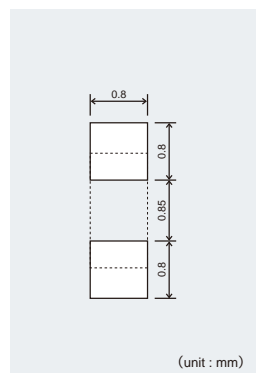
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)						Electrical and Optical Characteristics (Ta=25°C)											
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr(°C)	Storage Temperature Tstg(°C)	Forward Voltage V _F Typ. (V)	I _F (mA)	Reverse Current I _R Max. (μA)	V _R (V)	Dominant Wavelength λ _D Min.*2 Typ. (nm) Max.*2 (nm) I _F (mA)				Luminous Intensity I _v Min. (mcd) Typ. (mcd) I _F (mA)			
 SML-D12V8W	AlGaInP on GaAs	Red	54						2.2			4	625	630	635		16	40		
 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	20	100* ¹	5	-40 to +85	-40 to +100	2.0	20	10	630	635	640	20	16	22	20	
 SML-D13V8W			Red	52										625	630	635	25	48		
 SML-D13U8W			Red											615	620	625	40	70		
 SML-D13D8W			Orange	54										602	605	608	63	110		
 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:Duty1/10, 1kHz / *2:Reference
☆:Under development

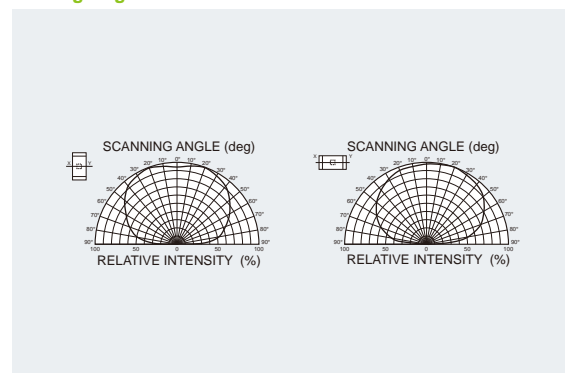
Dimensions



Recommended Solder Pattern



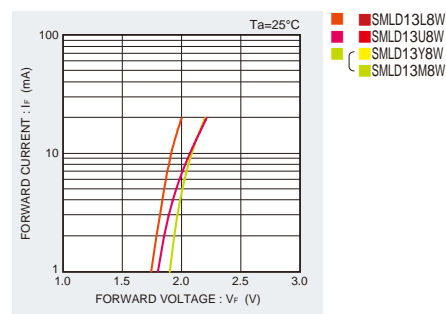
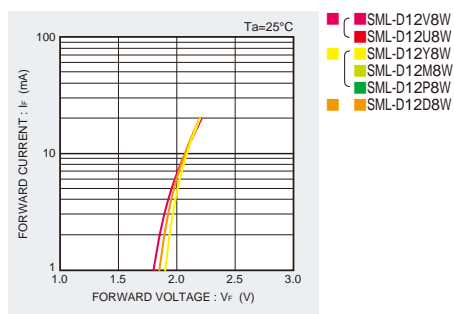
Viewing Angle



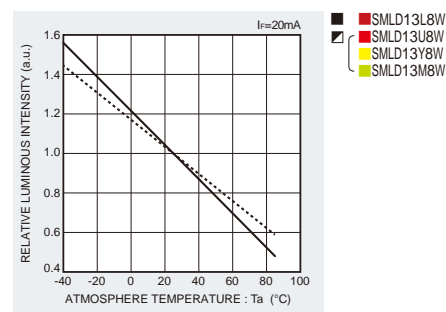
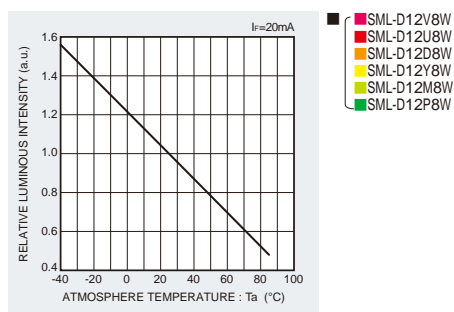
EXCELED™ is ROHME's pending trademark.

Electrical Characteristics Curves

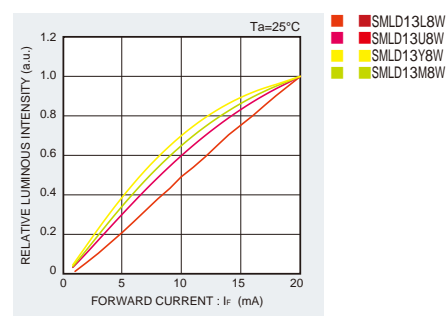
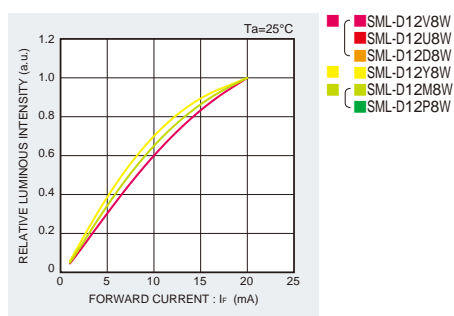
Forward Current-Forward Voltage



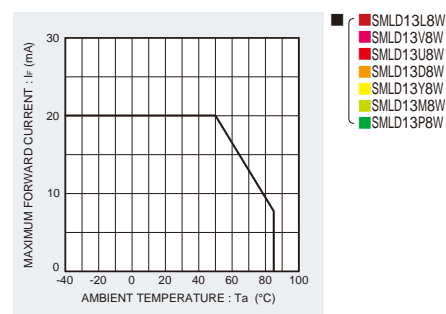
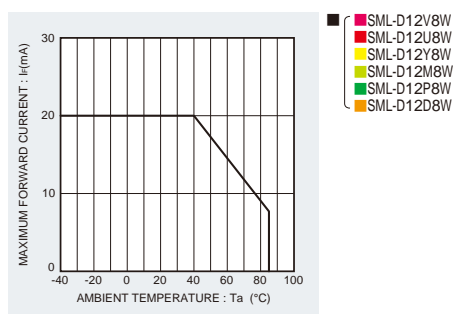
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



Rank Reference of Brightness

Red (L, V, U)

(Ta=25°C, If=20mA)

	Package size(mm)	Luminous Intensity (mcd)	H	J	K	L	M	N	P	Q	R	S	T	U
		Height(mm)	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)	Luminous Intensity (mcd)	H	J	K	L	M	N	P	Q	R	S	T	U
		Height(mm)	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)

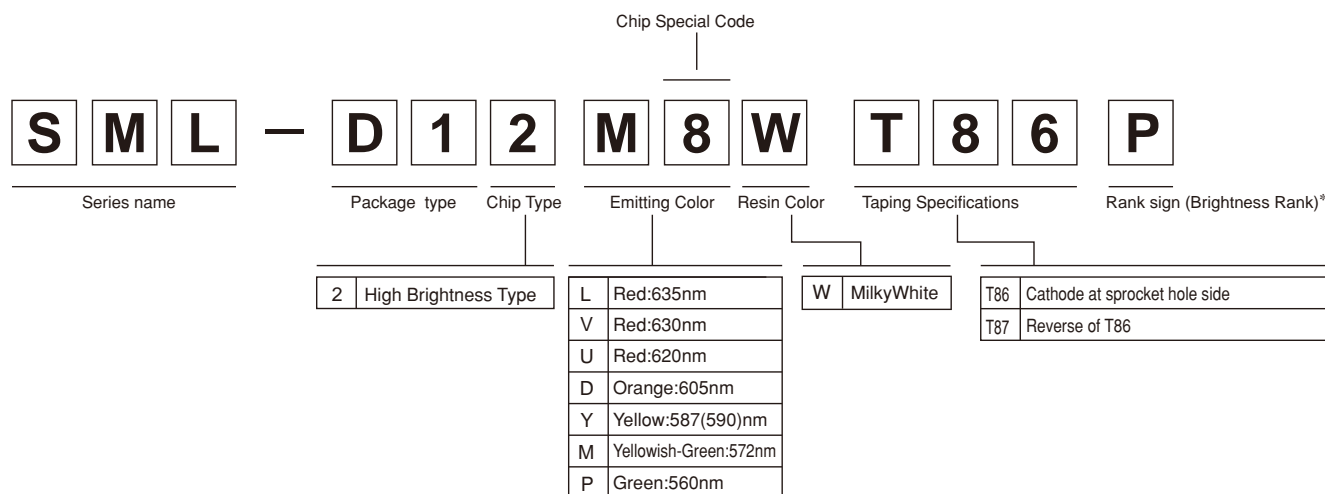
	Package size(mm)	Luminous Intensity (mcd)	H	J	K	L	M	N	P	Q	R	S	T	U
		Height(mm)	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400
Mini-mold Chip LEDs	1608	0.55									SML-D13Y8W			
											SML-D12Y8W			

Green (M, P)

(Ta=25°C, If=20mA)

	Package size(mm)	Luminous Intensity (mcd)	H	J	K	L	M	N	P	Q	R	S	T	U
		Height(mm)	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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