

Features

- Original device technology enables high brightness and high reliability
- · Single Rank products

●Size

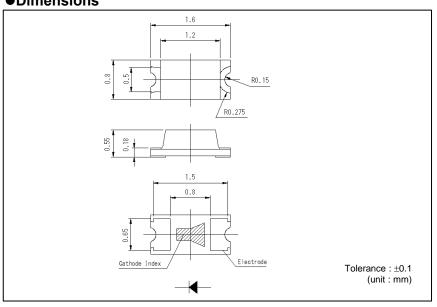
1608 (0603) 1.6 × 0.8mm (t=0.55mm)



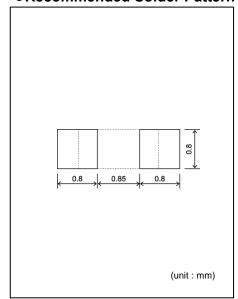
●Outline



Dimensions



Recommended Solder Pattern



Specifications

Part No.	Chip Structure	Color	Absolute Maximum Ratings (Ta=25°C)						Electrical and Optical Characteristics (Ta=25°C)										
			Power	Forward	Peak Forward Reverse		Operating Temp	Storage Temp.	Forward	Voltag V _F	Reverse	Current I _R	Dominant Wavelength λD Luminous I				ous Inte	nsity I _v	
			Dissipation	Current	Current	Voltage	Operating remp.	Glorage Temp.	Тур.	I _F	Max.	V_R	Min.*2	in.* ² Typ.	Max.*2	I _F	Min.	Тур.	I _F
			$P_D(mW)$	I _F (mA)	I _{FP} (mA)	$V_R(V)$	Topr(°C)	Tstg(°C)	(V)	(mA)	(μA)	(V)	(nm)	(nm)	(nm)	(mA)	(mcd)	(mcd)	(mA)
SML-D15VW	AlGalnP	Red	84	35	100*1	5	-40 to +100	-40 to +100	2.0	20	10	5	627	630	634		71	90	
SML-D15UW													616	620	624		90	112	
SML-D15U2W													612	615	618	20	112	140	20
SML-D15DW		Orange											602	605	608	20	180	224	20
SML-D15YW		Yellow Yellowish Green	87						2.1				587	590	593	-			
SML-D15MW													568	571	574		56	71	

*1:Duty1/10, 1kHz *2:Reference

• Electrical Characteristics Curves

reference

Fig.1 Forward Current - Forward Voltages

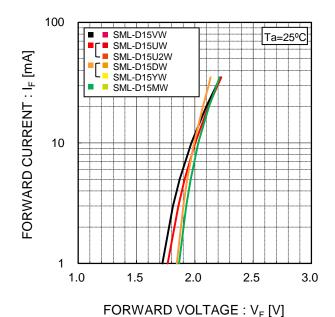


Fig.2 Luminous Intensity -Atmosphere Temperature 1.8 RELATIVE LUMINOUS INTENSITY [a.u.] I_F=20mA 1.6 1.4 1.2 1.0 ■r■ SML-D15VW 8.0 SML-D15UW SML-D15U2W SML-D15DW 0.6 SML-D15YW SML-D15MW 0.4

ATMOSPHERE TEMPERATURE: Ta [°C]

-40-30-20-10 0 10 20 30 40 50 60 70 80 90 100

Fig.3 Luminous Intensity - Forward Current

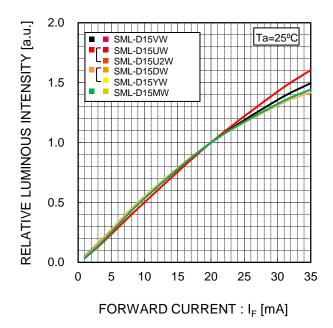
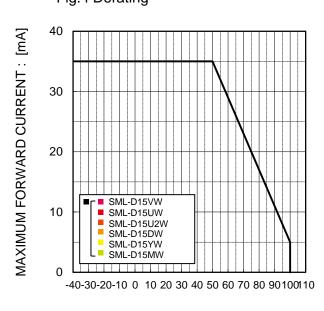


Fig.4 Derating



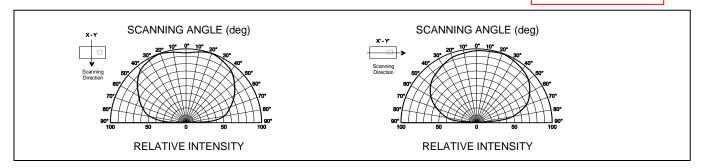
AMBIENT TEMPERATURE : Ta [°C]

TjMax ... 110°C

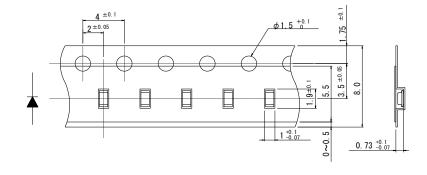
*Cu foil : 1.5mm × 1.0mm t=0.035mm Cathode PCB : FR4 t=0.8mm

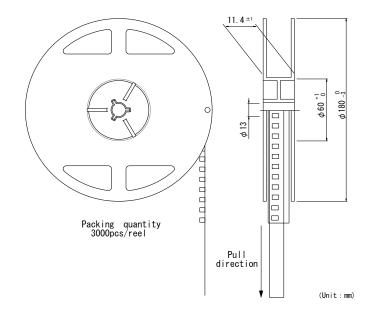
●Viewing Angle

reference



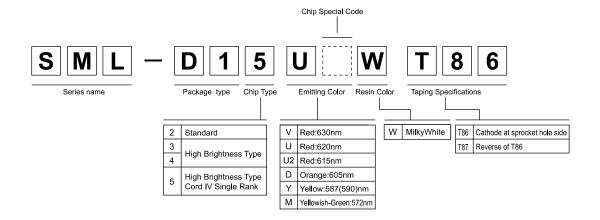
●Taping [T86]





 $\underline{\text{(Note) Tolerance is within } \pm 0.2\text{mm, unless}} \text{ otherwise spec}$

●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 distributer if necessary.

Notes

- 1) The information contained herein is subject to change without notice.
- Before you use our Products, please contact our sales representative and verify the latest specifications:
- 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 Poducts 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.
- 5) The technical information specified herein is intended only to show the typical functions of and examples of application circuits for the Products. ROHM does not grant you, explicitly or implicitly, any license to use or exercise intellectual property or other rights held by ROHM or any other parties. ROHM shall have no responsibility whatsoever for any dispute arising out of the use of such technical information.
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- 7) The Products specified in this document are not designed to be radiation tolerant.
- 8) For use of our Products in applications requiring a high degree of reliability (as exemplified below), please contact and consult with a ROHM representative: transportation equipment (i.e. cars, ships, trains), primary communication equipment, traffic lights, fire/crime prevention, safety equipment, medical systems, servers, solar cells, and power transmission systems.
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- 11) ROHM has used reasonable care to ensur the accuracy of the information contained in this document. However, ROHM does not warrants that such information is error-free, and ROHM shall have no responsibility for any damages arising from any inaccuracy or misprint of such information.
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