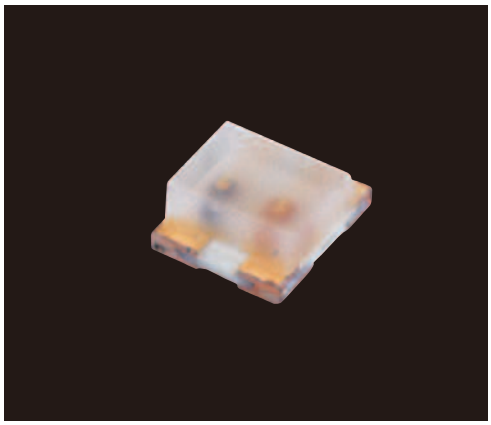


SML-52 Series

1315(0605)
1.3×1.5mm(t=0.6mm)

Features

・2-color type LED
・Abundant 2 color variations

Color Type

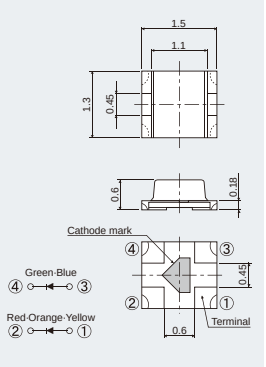


Specifications

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)	VF IF(mA)	Reverse Current IR Max. (μA)	IR VR(V)	Dominant Wavelength λD Min.*3 (nm)	Typ. (nm)	Max.*3 (nm)	IF(mA)	Luminous Intensity Iv Min. (mcd)	Typ. (mcd)	IF(mA)
SML522BUW	InGaN	Blue	66	20	60*2	5	-40 to +85	-40 to +100	2.9	5	10	5	465	470	475	5	9.0	22	5
	AlGaInP on GaAs	Red	50						1.9				619	624	629		10	21	
SML-522MUW	AlGaInP on GaAs	Yellowish Green	52	20	60*1			-40 to +85	2.1				569	572	575		14	40	
		Red	50						1.9				615	620	625		22	63	
SML-522MU8W		Green	52		60*2	4	-30 to +85	-40 to +100	2.2		100		569	572	575		16	40	
		Red											615	620	625		25	63	
SML-521MUW	AlGaInP on GaAs Gap	Yellowish Green	70	25	60*1			-40 to +85	2.2				569	572	575		5.6	16	
		Red	50	20					1.9				615	620	625		22	63	
SML-522MD8W	AlGaInP on GaAs	Green	52	20	100*2	5	-40 to +85	-40 to +100	2.1	20	10	4	569	572	575	20	10	18	20
		Orange											602	605	608		40	63	
SML-521MDW	AlGaInP on GaAs Gap	Yellowish Green	70	25	60*1		-30 to +85	-40 to +85	2.2				569	572	575		5.6	16	
		Orange	50	20					1.9				602	605	608		22	63	
SML-522MY8W	AlGaInP	Green	54	20	100*2	4	-40 to +85	-40 to +100	2.2		100		569	572	575		16	40	
		Yellow											587	590	593		40	63	
SML-521MYW	AlGaInP on GaAs Gap	Yellowish Green	70	25	60*1		-30 to +85	-40 to +85	2.2				569	572	575		5.6	16	
		Yellow	50	20					1.9				584	587	590		22	63	

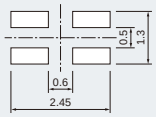
*1:Duty1/5, 200Hz *2:Duty1/10, 1kHz *3:Rrference

Dimensions



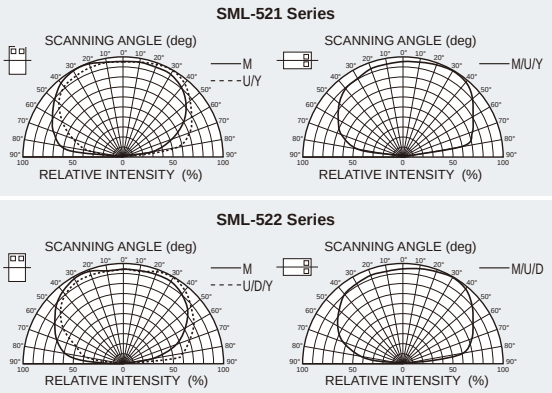
Tolerance : ±0.1
(unit : mm)

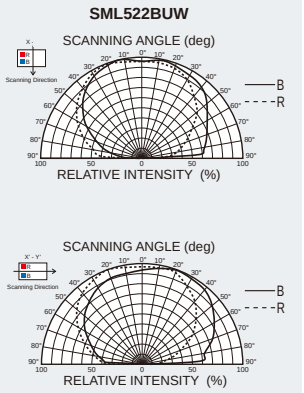
Recommended Solder Pattern



(unit : mm)

Viewing Angle

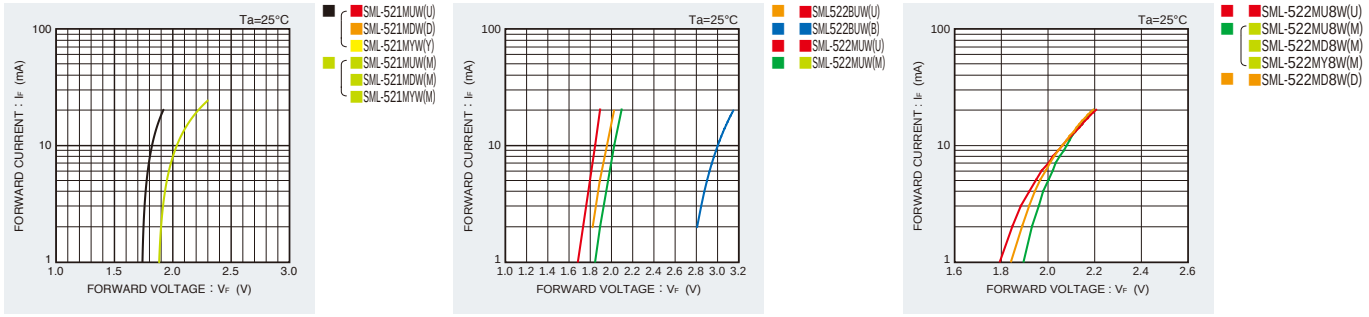




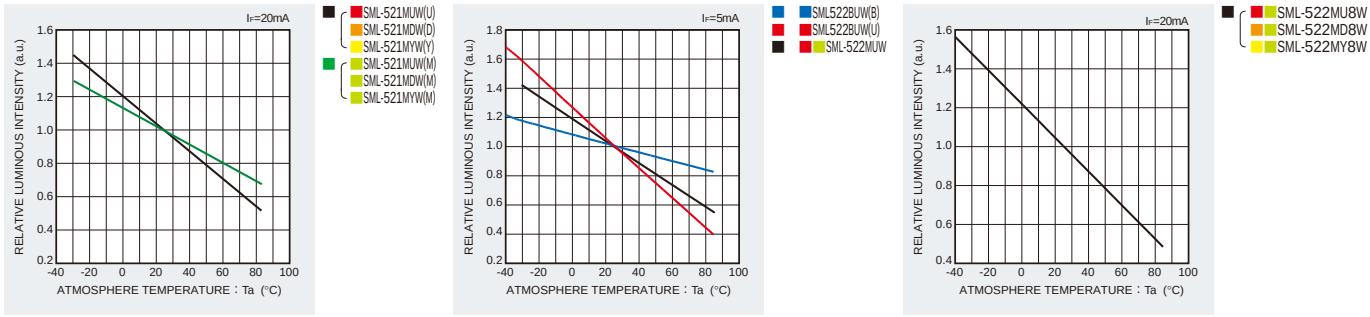
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Electrical Characteristics Curves

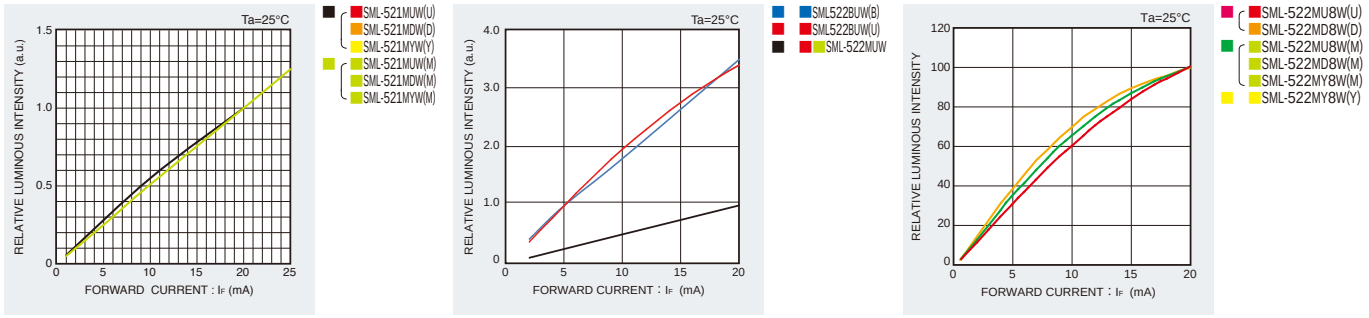
Forward Current-Forward Voltage



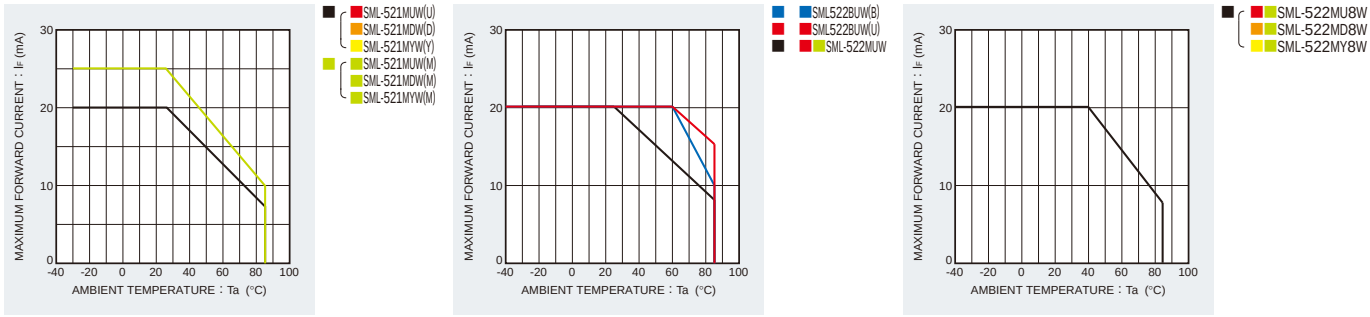
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



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Rank Reference of Brightness

Dual Color

(Ta=25°C, IF=20mA)

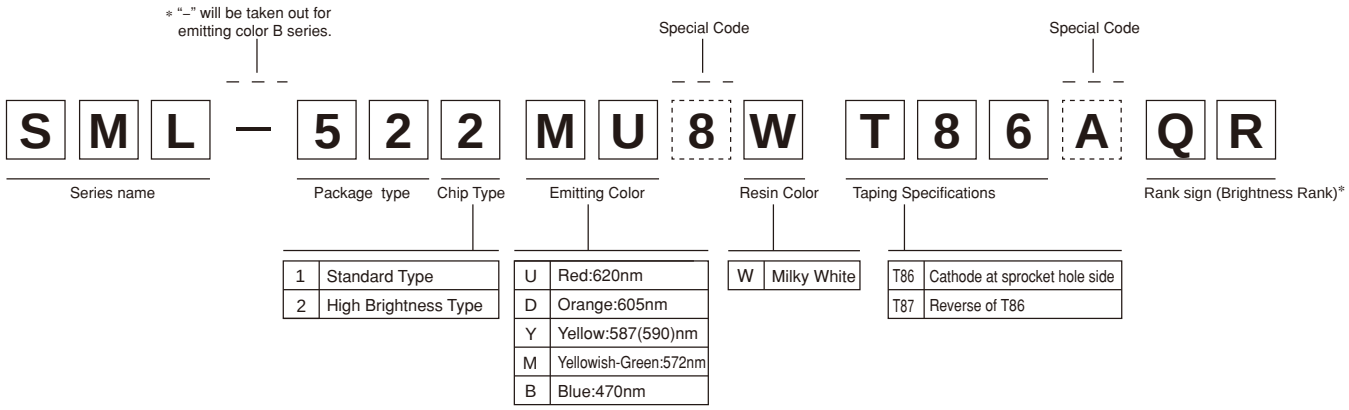
	Package size (mm)	Height (mm)	Part No.	Luminous Intensity (mcd) / Emitting Color	K 4.0 to 6.3	L 6.3 to 10	M 10 to 16	N 16 to 25	P 25 to 40	Q 40 to 63	R 63 to 100	S 90 to 140	T 140 to 220	U 220 to 360
Mini-mold Chip LEDs	1315	0.6	SML-522MUW※	Red					U					
				Yellowish Green				M						
			SML-522MU8W	Red					U					
				Green				M						
			SML-521MUW※	Red					U					
				Yellowish Green			M							
			SML-521MDW※	Orange					D					
				Yellowish Green			M							
			SML-522MD8W	Orange						D				
				Green			M							
			SML-522MY8W	Yellow						Y				
				Green				M						
			SML-521MYW※	Yellow					Y					
				Yellowish Green			M							

(Ta=25°C, IF=5mA)

	Package size (mm)	Height (mm)	Part No.	Luminous Intensity (mcd) / Emitting Color	K 4.0 to 6.3	L 6.3 to 10	M 10 to 16	N 16 to 25	P 25 to 40	Q 40 to 63	R 63 to 100	S 90 to 140	T 140 to 220	U 220 to 360
Mini-mold Chip LEDs	1315	0.6	SML522BUW	Red				U						
				Blue				B						

※Measurement tolerance ± 10%.

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.

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Notes

1) The information contained herein is subject to change without notice.

2) 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.

6) The Products are intended for use in general electronic equipment (i.e. AV/OA devices, communication, consumer systems, gaming/entertainment sets) as well as the applications indicated in this document.

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.

9) Do not use our Products in applications requiring extremely high reliability, such as aerospace equipment, nuclear power control systems, and submarine repeaters.

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ROHM SEMICONDUCTOR

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