



SML-52 Series

1315(0605)
1.3 × 1.5mm(t=0.6mm)

Features

- 2-color type LED
- Abundant 2 color variations

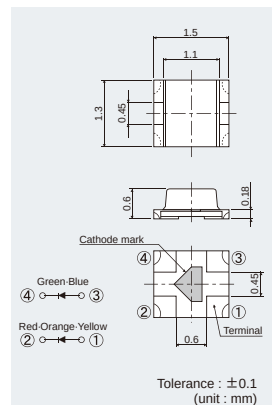
Color Type

Specifications

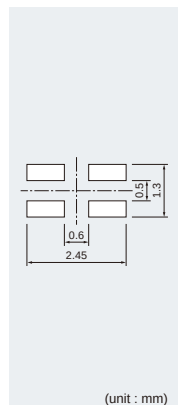
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)						Electrical and Optical Characteristics (Ta=25°C)																				
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature T _{opr} (°C)	Storage Temperature T _{stg} (°C)	Forward Voltage V _F		Reverse Current I _R		Dominant Wavelength λ _D			Luminous Intensity I _v													
									Typ. (V)	I _F (mA)	Max. (μA)	V _R (V)	Min.*3 (nm)	Typ. (nm)	Max.*3 (nm)	I _F (mA)	Min. (mcd)	Typ. (mcd)	I _F (mA)										
 SML522BUW	InGaP	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															25						20	60 ₊₁	-40 to +85		2.2	569	
 SML-521MUW	AlGaInP on GaAs Gap	Yellowish Green	70	25	60 ₊₁		-40 to +85	-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:Reference

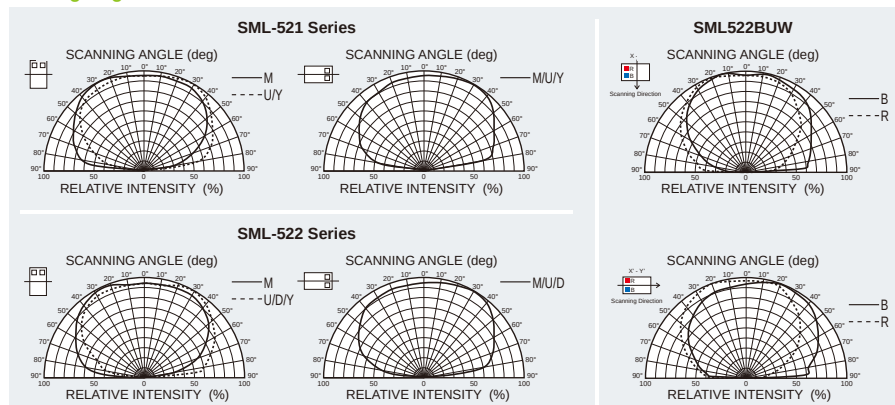
Dimensions



Recommended Solder Pattern

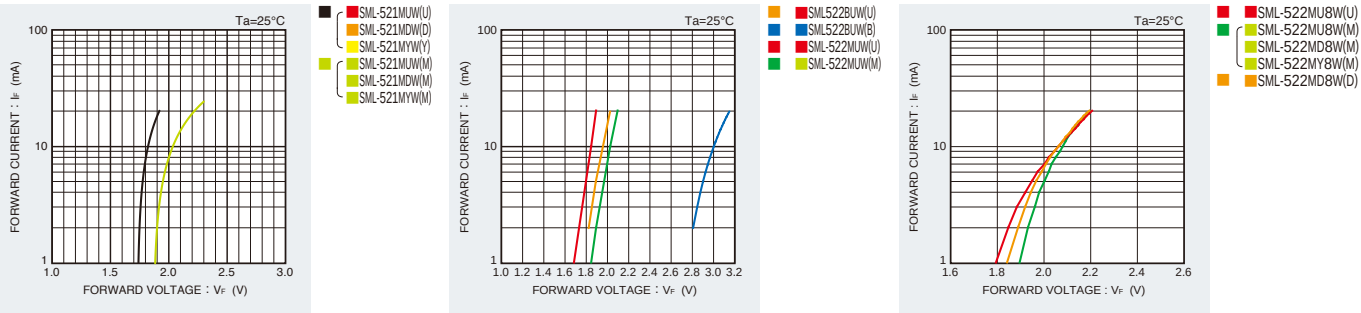


Viewing Angle

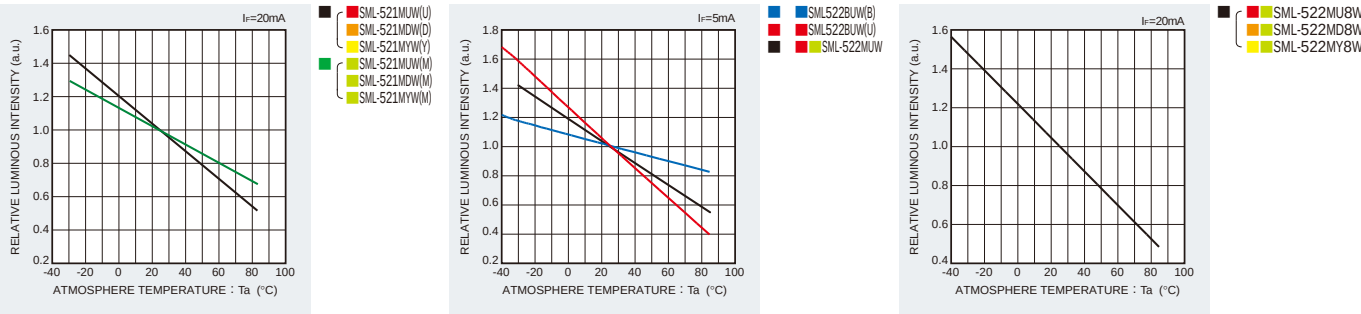


Electrical Characteristics Curves

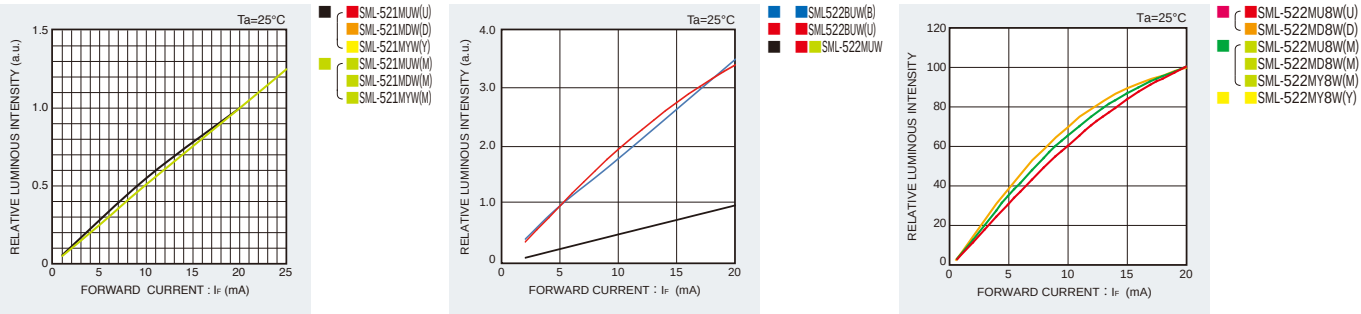
Forward Current-Forward Voltage



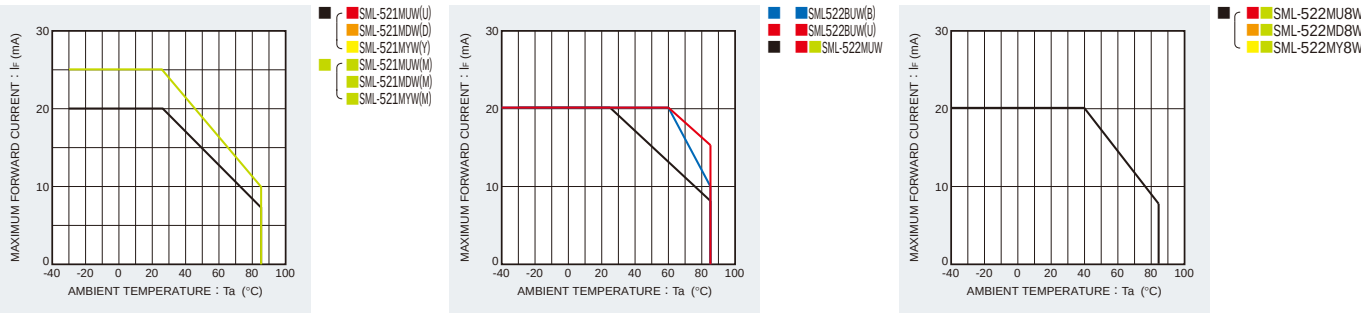
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



Rank Reference of Brightness

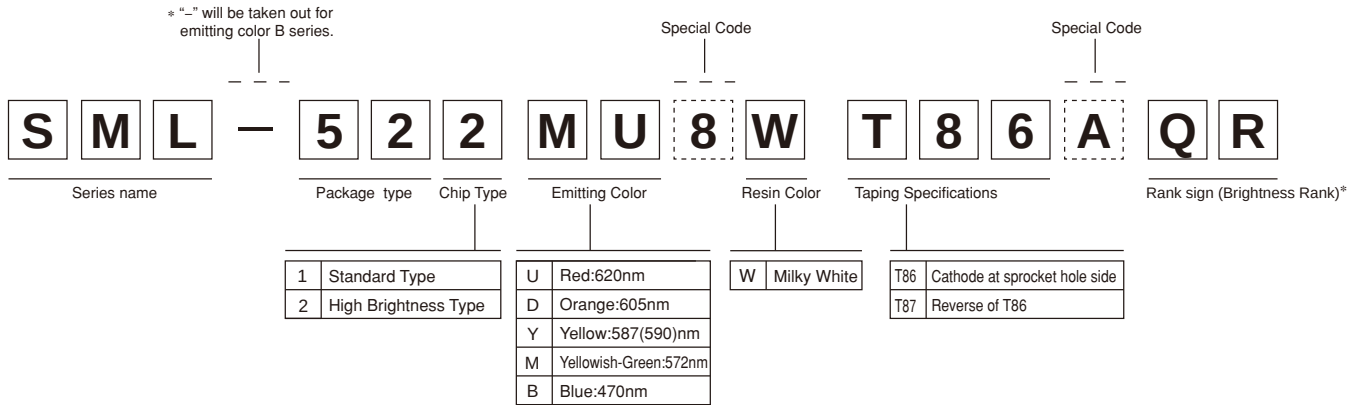
Dual Color

				(Ta=25°C, If=20mA)										
	Package size (mm)	Height (mm)	Part No.	Luminous Intensity (mcd)	K	L	M	N	P	Q	R	S	T	U
				Emitting Color	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	90 to 140	140 to 220	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)	K	L	M	N	P	Q	R	S	T	U
				Emitting Color	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	90 to 140	140 to 220	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 distributor if necessary.

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 Products 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.
- 10) ROHM shall have no responsibility for any damages or injury arising from non-compliance with the recommended usage conditions and specifications contained herein.
- 11) ROHM has used reasonable care to ensure the accuracy of the information contained in this document. However, ROHM does not warrant that such information is error-free, and ROHM shall have no responsibility for any damages arising from any inaccuracy or misprint of such information.
- 12) Please use the Products in accordance with any applicable environmental laws and regulations, such as the RoHS Directive. For more details, including RoHS compatibility, please contact a ROHM sales office. ROHM shall have no responsibility for any damages or losses resulting from non-compliance with any applicable laws or regulations.
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