

# SML-52 Series

1315(0605)  
1.3×1.5mm(t=0.6mm)

### Features

- 2-color type LED
- Abundant 2 color variations

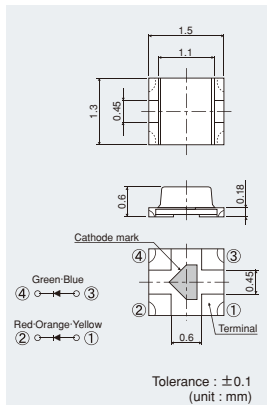


### Specifications

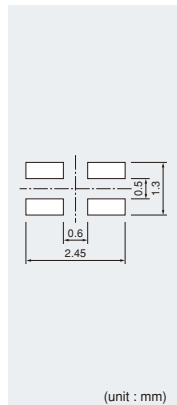
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)						Electrical and Optical Characteristics (Ta=25°C)										
			Power Dissipation Pd(mW)	Forward Current IF(mA)	Peak Forward Current IFP(mA)	Reverse Voltage VR(V)	Operating Temperature Topr(°C)	Storage Temperature Tstg(°C)	Forward Voltage VF(Typ.)(V)	IF(mA)	Reverse Current IR(Max.)(μA)	VR(V)	Dominant Wavelength λD(nm)			Luminous Intensity Iv(mcd)			
SML522BUW	InGaN	Blue	66	20	60 <sub>+2</sub>	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 <sub>+1</sub>				2.1				569	572	575		14	40	
		Red	50						1.9				615	620	625		22	63	
SML-522MU8W	AlGaInP on GaAs	Green	52	20	60 <sub>+2</sub>	4	-30 to +85	-40 to +100	2.2	100			569	572	575		16	40	
		Red	52						2.2				615	620	625		25	63	
SML-521MUW	AlGaInP on GaAs Gap	Yellowish Green	70	25	60 <sub>+1</sub>				2.2				569	572	575		5.6	16	
		Red	50						1.9				615	620	625		22	63	
SML-522MD8W	AlGaInP on GaAs	Green	52	20	100 <sub>+2</sub>	5	-40 to +85	-40 to +100	2.1	20	10	4	569	572	575	20	10	18	20
		Orange	52						2.1				602	605	608		40	63	
SML-521MDW	AlGaInP on GaAs Gap	Yellowish Green	70	25	60 <sub>+1</sub>		-30 to +85	-40 to +85	2.2				569	572	575		5.6	16	
		Orange	50						1.9				602	605	608		22	63	
SML-522MY8W	AlGaInP	Green	54	20	100 <sub>+2</sub>	4	-40 to +85	-40 to +100	2.2	100			569	572	575		16	40	
		Yellow	54						2.2				587	590	593		40	63	
SML-521MYW	AlGaInP on GaAs Gap	Yellowish Green	70	25	60 <sub>+1</sub>		-30 to +85	-40 to +85	2.2				569	572	575		5.6	16	
		Yellow	50						1.9				584	587	590		22	63	

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

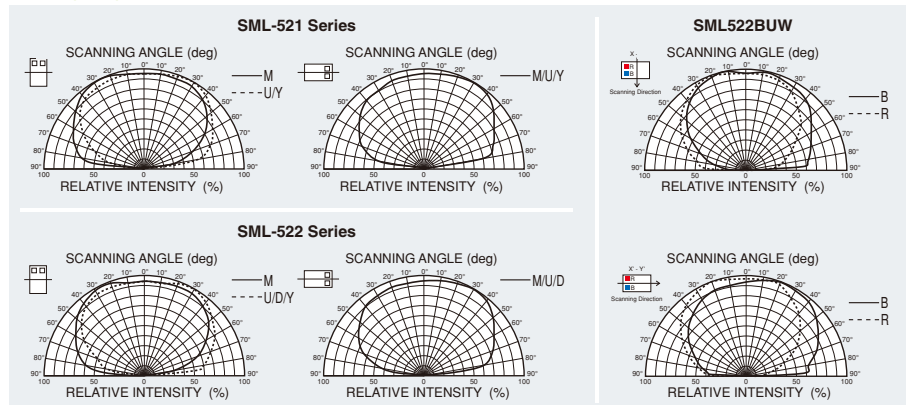
### Dimensions



### Recommended Solder Pattern

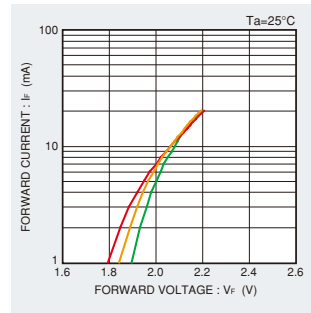
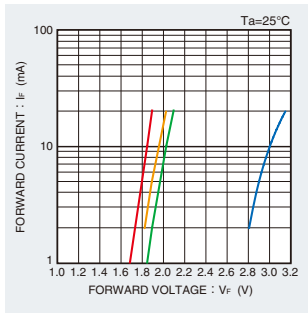
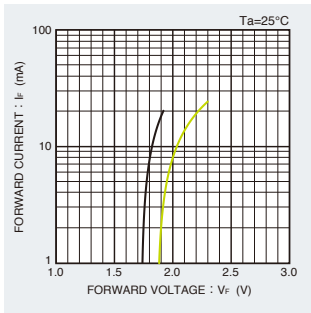


### Viewing Angle

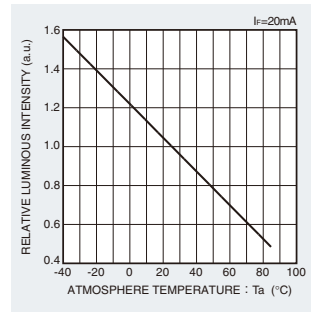
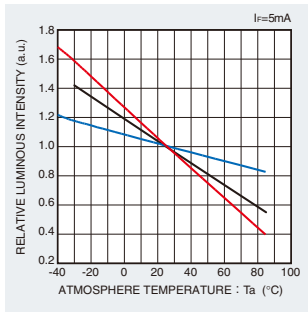
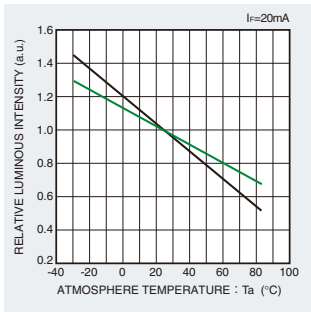


## Electrical Characteristics Curves

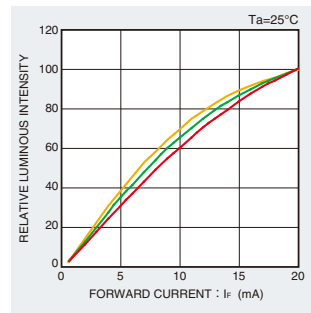
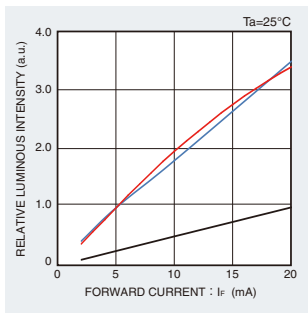
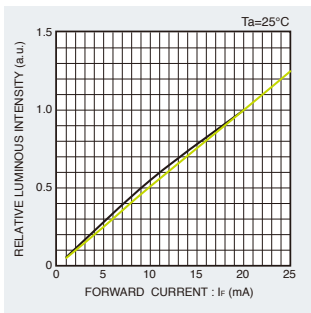
### Forward Current-Forward Voltage



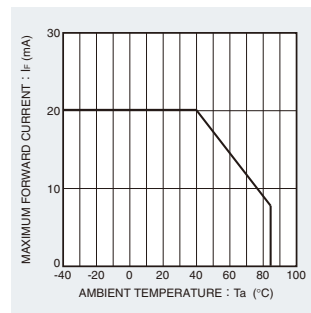
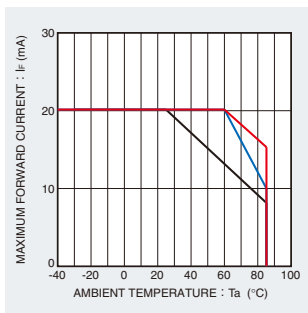
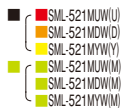
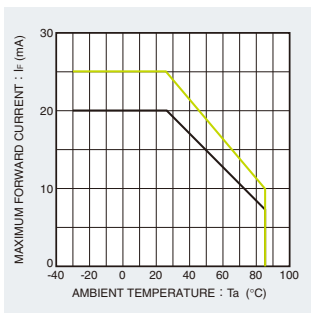
### Luminous Intensity-Atmosphere Temperature



### Luminous Intensity-Forward Current



### Derating





## 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.
- 13) When providing our Products and technologies contained in this document to other countries, you must abide by the procedures and provisions stipulated in all applicable export laws and regulations, including without limitation the US Export Administration Regulations and the Foreign Exchange and Foreign Trade Act.
- 14) This document, in part or in whole, may not be reprinted or reproduced without prior consent of ROHM.



Thank you for your accessing to ROHM product informations.  
More detail product informations and catalogs are available, please contact us.

## ROHM Customer Support System

<http://www.rohm.com/contact/>