

SML-52 Series

1315(0605) 1.3×1.5 mm(t=0.6mm)

Features

- ·2-color type LED
- · Abundant 2 color variations





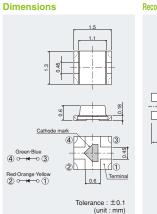




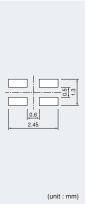


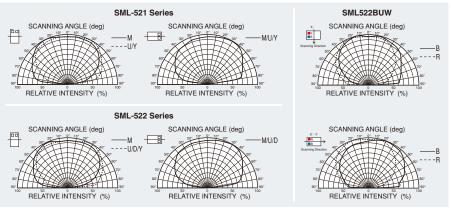
Specifications

				Abso		Electrical and Optical Characteristics (Ta=25°C) Forward Voltage VF Reverse Current In Dominant Wavelength \(\lambda\) D Luminous Intensity Iv													
Part No.	Chip Structure	Emitting Color	Power Dissipation PD(mW)	Forward Current IF(mA)	Peak Forward Current IFP(mA)	Reverse Voltage VR(V)	Operating Temperature Topr(°C)	$ \begin{array}{c} \text{Storage} \\ \text{Temperature} \\ \text{Tstg}({}^{\circ}\!C) \end{array} $	Forward ' Typ. (V)	Voltage VF IF(mA)	Reverse (Max. (µA)	VR(V)	Domin Min.*3 (nm)	ant Wa Typ. (nm)	veleng Max.* ³ (nm)		Lumino Min. (mcd)		
- OM FOODING	InGaN	Blue 66			_			2.9				465	470	475		9.0	22	_	
SML522BUW	AlGaInP on GaAs	Red	50	20	60*2	5	-40 to +85	-40 to +100	1.9	5	10	5	619	624	629	5	10	21	5
SML-522MUW		Yellowish Green	52		60*1			-40 to +85	2.1				569	572	575		14	40	
SIVIL-522IVIO W	AlGalnP	Red	50	20	00*1			-40 10 +65	1.9				615	620	625		22	22 21 40 63 40 63 16 63 18	
CMI FOOMHOW	on GaAs	Green		20		,	00 +- 05	40.1- 400	0.0		400		569	572	575		16	40	
SML-522MU8W		Red	52		60*2	4	-30 to +85	-40 to +100	2.2		100		615	620	625		25	Typ. (mcd) 22 21 40 63 40 63 16 63 16 63 40 40	
SML-521MUW	AlGaInP on GaAs	Yellowish Green	70	25	60*1			-40 to +85	2.2				569	572	575		5.6	16	
SIVIL-52 TIVIO VV	Gap	Red	50	20	6U*1			-40 10 +65	1.9				615	620	625		22	Typ. (med) Typ. (med) (m	
SML-522MD8W	AlGalnP	Green	52	20	100*2	5	-40 to +85	-40 to +100	2.1	20	10	4	569	572	575	20	10	18	
SIVIL-522IVID6W	on GaAs	Orange		20	100*2	5	-40 (0 +65	-40 (0 +100	2.1	20	10	4	602	605	608	20	40	18	
SML-521MDW	AlGaInP on GaAs	Yellowish Green	70	25	60*1		-30 to +85	40 to . 05	2.2				569	572	575		5.6	16	
SIVIL-32 TIVID VV	Gap	Orange	50	20	60*1			-40 to +85	1.9				602	605	608		22	63	
SML-522MY8W	AlGaInP	Green	54	20	400	4	40.1 05	-40 to +100	2.2		100		569	572	575		16	40	
SIVIL-322IVI 1 6 VV	AlGaille	Yellow	54	20	100*2	4	-40 to +85	-40 (0 +100	2.2		100		587	590	593		40	21 40 63 40 63 16 63 18 63 16 63 40	
SML-521MYW	AlGaInP on GaAs	Yellowish Green	70	25	60 _{*1}		-30 to +85	-40 to +85	2.2				569	572	575		5.6	16	
SIVIL-32 I IVI Y VV	on GaAs Gap	Yellow	50	20					1.9				584	587	590		22	63	



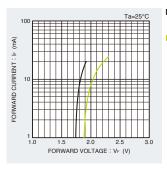
Recommended Solder Pattern Viewing Angle

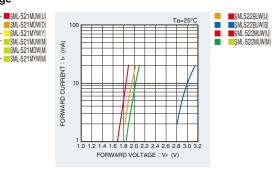


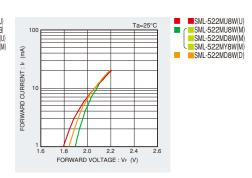


Electrical Characteristics Curves

Forward Current-Forward Voltage





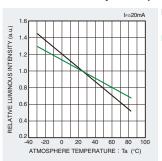


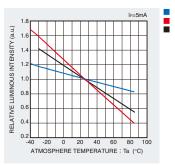
Luminous Intensity-Atmosphere Temperature

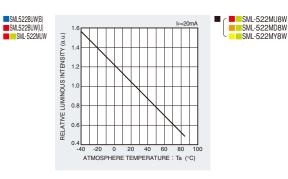
SMI -521MUW(U)

SML-521MDW(D SML-521MYW(Y)

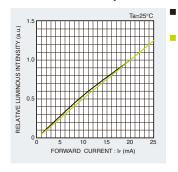
SML-521MUW(M) SML-521MDW(M) SML-521MYW(M)

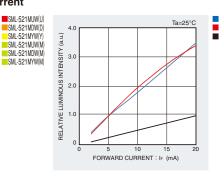


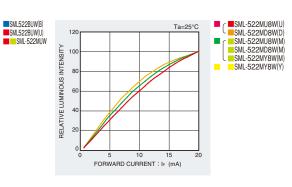




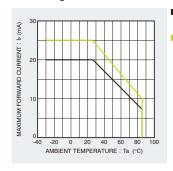
Luminous Intensity-Forward Current

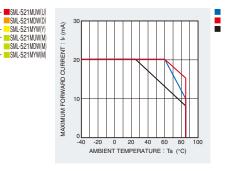


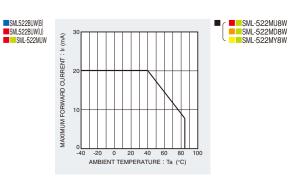




Derating







Rank Reference of Brightness

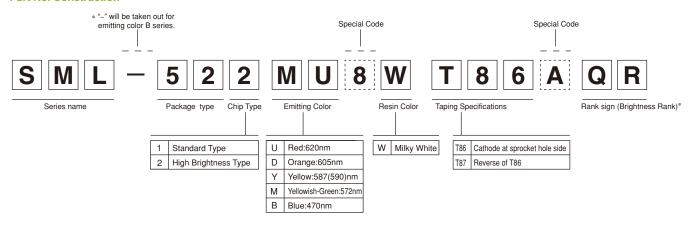
Dual Color

												(Ta=25°C, I	F=20mA)
	Package	Height	Part No.	Luminous	K	L	М	N	Р	Q	R	S	T	U
	Package size (mm)	(mm)		Luminous Intensity (mod) 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
			CMI FOOMUNA	Red						U				
			SML-522MUW*	Yellowish Green					М					
			SML-522MU8W	Red						U				
				Green					M					
	1315		SML-521MUW*	Red						U				
				Yellowish Green			M							
Mini-mold			SML-521MDW*	Orange						D				
Chip LEDs			SIVIL-32 HVIDVV	Yellowish Green			M							
			SML-522MD8W	Orange							D			
				Green				M						
			SML-522MY8W	Yellow							Υ			
			SIVIL-322IVITOVV	Green					M					
			SML-521MYW*	Yellow						Υ				
				Yellowish Green			M							

													(Ta=25°C,	$I_F=5mA)$
	Package	Height		Luminous	K	L	М	N	Р	Q	R	S	T	U
	Package size (mm)	(mm)	Part No.		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	1315	0.6	SML522BUW	Red				U						
Chip LEDs 13	1313	0.6	SIVILOZZBUW	Blue				В						

%Measurement tolerance \pm 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.

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.
- 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 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.
- 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 non-compliance with any applicable laws or regulations.
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