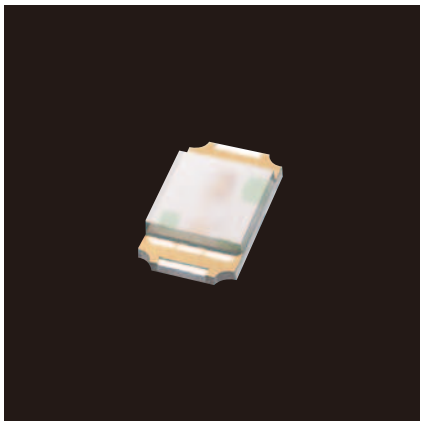


SML-P11 Series

PICOLED™-eco

1006(0402)
1.0×0.6mm(t=0.2mm)

Features

・Ultra compact, thin size 1.0×0.6mm,t=0.2mm
・Accomplishes low power consuming application specification assured at IF=1mA

Color Type: V U D Y M

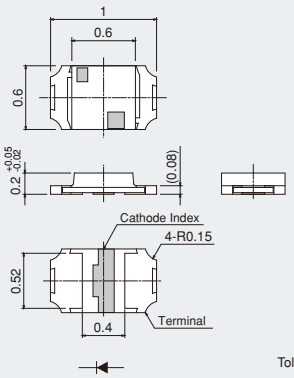
Specifications

PICOLED™-eco

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		Reverse Current IR		Dominant Wavelength λD				Luminous Intensity Iv		
									Typ.(V)	IF(mA)	Max.(μA)	VR(V)	Min.*2 (nm)	Typ. (nm)	Max.*2 (nm)	IF(mA)	Min. (mcd)	Typ. (mcd)	IF(mA)
SML-P11VT(R)	AlGaInP on GaAs	Red	50	20	100*1	5	-40 to +85	-40 to +100	1.8	1	10	4	621	626	631	1	1.6	4.0	1
SML-P11UT(R)													616	621	626		2.5	6.3	
SML-P11DT(R)		Orange	52										602	605	608		4.0	7.3	
SML-P11YT(R)		Yellow							1.9				583	586	589			7.6	
SML-P11MT(R)		Yellowish Green	54										566	569	572		1.0	2.1	

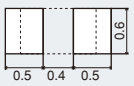
*1:Duty1/10, 1kHz *2:Reference

Dimensions



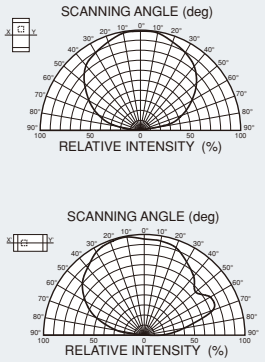
Tolerance : ±0.05
(unit : mm)

Recommended Solder Pattern



(unit : mm)

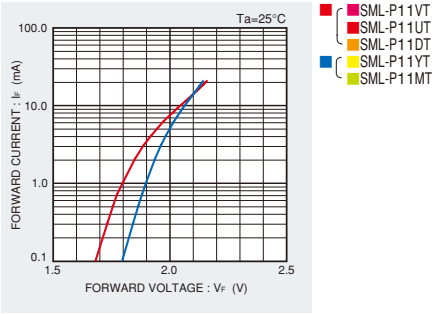
Viewing Angle



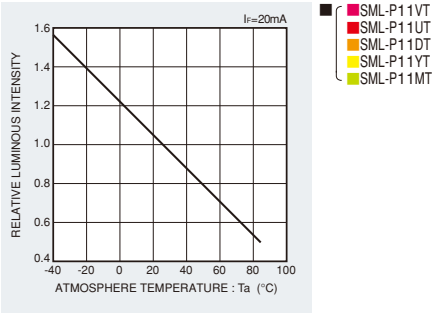
* PICOLED™ is ROHM's pending trademark.

Electrical Characteristics Curves

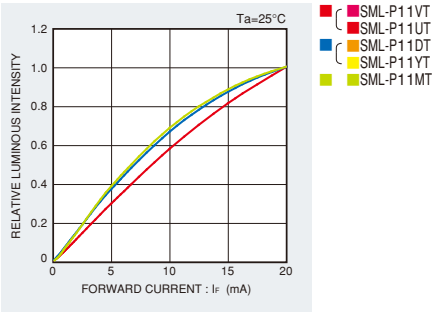
Forward Current-Forward Voltage



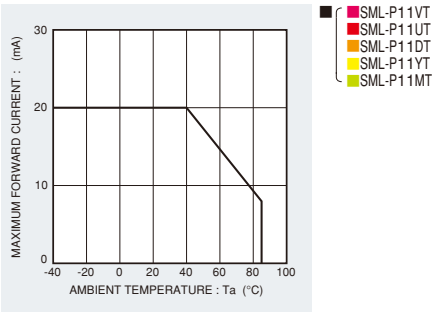
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



Rank Reference of Brightness

Red (V, U)

(Ta=25°C, IF=1mA)

	Package size(mm)	Luminous Intensity (mcd) / Height(mm)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
			0.063 to 0.1	0.1 to 0.16	0.16 to 0.25	0.25 to 0.4	0.4 to 0.63	0.63 to 1.0	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40
Mini-mold Chip LEDs	1006	0.2								SML-P11VT						
											SML-P11UT					

Orange (D)

(Ta=25°C, IF=1mA)

	Package size(mm)	Luminous Intensity (mcd) / Height(mm)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
			0.063 to 0.1	0.1 to 0.16	0.16 to 0.25	0.25 to 0.4	0.4 to 0.63	0.63 to 1.0	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40
Mini-mold Chip LEDs	1006	0.2										SML-P11DT				

Yellow (Y)

(Ta=25°C, IF=1mA)

	Package size(mm)	Luminous Intensity (mcd) / Height(mm)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
			0.063 to 0.1	0.1 to 0.16	0.16 to 0.25	0.25 to 0.4	0.4 to 0.63	0.63 to 1.0	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40
Mini-mold Chip LEDs	1006	0.2										SML-P11YT				

Green (M)

(Ta=25°C, IF=1mA)

	Package size(mm)	Luminous Intensity (mcd) / Height(mm)	A	B	C	D	E	F	G	H	J	K	L	M	N	P
			0.063 to 0.1	0.1 to 0.16	0.16 to 0.25	0.25 to 0.4	0.4 to 0.63	0.63 to 1.0	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40
Mini-mold Chip LEDs	1006	0.2							SML-P11MT							

Part No. Construction

Special Code

S M L — P 1 1 M T T 8 6 R H

Series name / Package name / Chip Type / Emitting Color / Resin Color / Taping Specifications / Rank sign (Brightness Rank)*

1	Low Current Type
2	High Brightness Type

V	Red:630nm
U	Red:620nm
D	Orange:605nm
Y	Yellow:587(590)nm
M	Yellowish-Green:572nm

T	Transparent Colorless
W	MilkyWhite

T86	Cathode at sprocket hole side
T87	Reverse of T86
1	For white LED, cathode at sprocket hole side

* 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.

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.

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.

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.

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ROHM SEMICONDUCTOR

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