



PicoLED™-eco

Ultra-compact LEDs two times brighter at 1mA

Summary

PicoLED™-eco is a series of chip LEDs developed in response to customer demands for greater brightness with lower power consumption. The units deliver increased brightness in the low current region of 1mA, all from the most compact package* (1.0 × 0.6 × 0.2mm) in the world - 53% and 74% smaller in area and volume, respectively, than conventional products (0603 size, t=0.4mm). Ideal for use in applications where size and power consumption are critical elements.

Features

- 1) Approximately twice as bright as conventional products at 1mA.
- 2) Reduces energy consumption in small portable or battery-powered devices, increasing battery life.
- 3) High-reliability four-element structure (AlGaInP) prevents brightness degradation, even after long-term, continuous use.
- 4) The smallest, thinnest package in the world: 0402 size, t=0.2 mm.

Applications

Devices and sets requiring ultra-compact components with low power consumption for increased battery life, such as keypads for mobile phones, digital cameras, or high-density dot-matrix products.

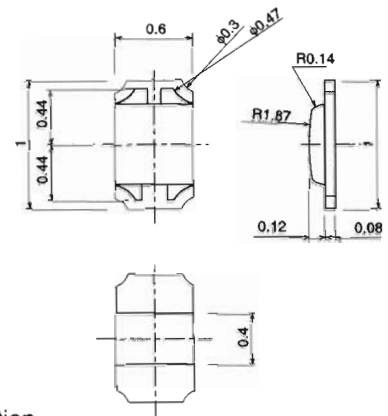
Absolute Maximum Ratings (Ta = 25°C)

Part No.	Emitting color	Power dissipation P _D (mW)	Forward current I _F (mA)	Peak forward current I _{FP} (mA)	Forward voltage V _R (V)	Operating Temperature T _{opr} (°C)	Storage Temperature T _{stg} (°C)
SML-P11M	Yellow-green (M)	65	25	100	5	-30 to +85	-40 to +100
SML-P11Y	Yellow (Y)	75	30				
SML-P11D	Orange (D)						
SML-P11U	Red (U)						
SML-P11V	Red (V)						

*April 2007 ROHM study

Note: The PicoLED™-eco is a registered (pending) trademark of ROHM.

Dimensions (Unit: mm)



- The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- The application circuit examples, information, and various data pertaining to the use of the products presented in this documentation are provided for reference purposes only.
- Please note that ROHM cannot bear any responsibility regarding any problems relating to industrial property rights resulting from their use thereof.

The products listed in this catalog are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys). Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

Current specifications in effect of 1st. May 2007.

Excellence in Electronics



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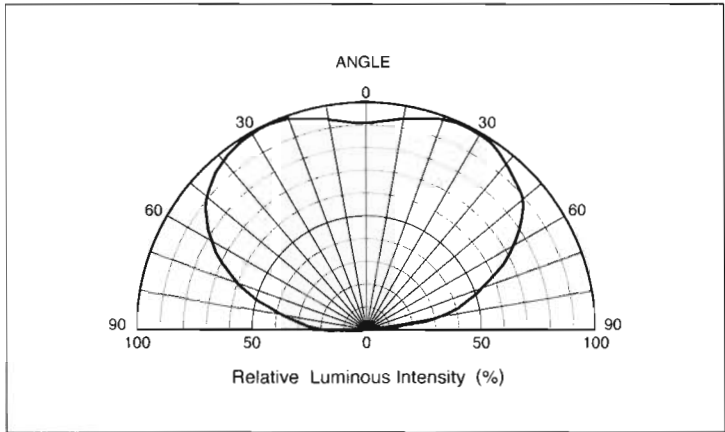
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● **Electrical Optical Characteristics (Ta = 25°C)**

Part No.	Emitting color	Forward voltage V_F		Peak Light Emission Wavelength		Brightness I_V	
		Typ.(V)	I_F (mA)	Typ.(nm)	I_F (mA)	Typ.(mcd)	I_F (mA)
SML-P11M	Yellow-green (M)	1.90	1	572	1	2.1	1
SML-P11Y	Yellow (Y)	1.90		592		8.0	
SML-P11D	Orange (D)	1.80		608		7.5	
SML-P11U	Red (U)	1.80		624		5.5	
SML-P11V	Red (V)	1.90		633		3.5	

● **Directivity (Typ.)**



Note: Specifications are currently under development and may be subject to change without notice.