







Features

- High current operation for greater luminous output
- Low power consumption and thermal resistance

www.SunLEDusa.com

- Can be used with automatic insertion equipment
- RoHS Compliant





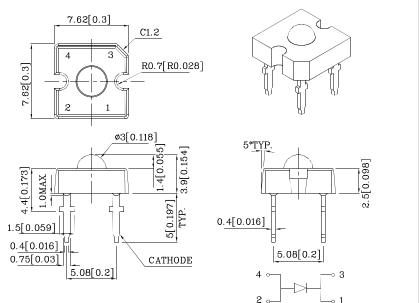
Benefits:

- •Rugged design allows for easy maintenance
- •Robust package for optimum reliability

Typical Applications:

- •Automotive side markers
- •Gaming and entertainment lighting
- •Signs and road hazard indicators

Package Schematics



Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Rating (T _A =25°C)	M2MOK (AlGaInP)	Unit		
Reverse Voltage	$V_{\rm R}$	5	V	
DC Forward Current	I_{F}	70	mA	
Power Dissipation	PD	210	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-55 ~ +85		
Lead Solder Temperature [1.5mm Below Seating Plane.]	260°C For 5 Seconds			

Operating Characteristics $(T_A=25^{\circ}C)$	M2MOK (AlGaInP)	Unit	
Forward Voltage (Min.) (I _F =70mA)	V_{F}	2.0	V
Forward Voltage (Typ.) (I _F =70mA)	V_{F}	2.4	V
Forward Voltage (Max.) (I _F =70mA)	V_{F}	3.0	V
Reverse Current (Max.) (V _R =5V)	I_{R}	10	uA
Wavelength of Peak Emission CIE127-2007*(Typ.) (I _F =70mA)	λР	611*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) (I _F =70mA)	λD	605*	nm
Spectral Line Full Width At Half Maximum (Typ.) (I _F =70mA)	$\triangle \lambda$	17	nm
Capacitance (Typ.) (V _F =0V, f=1MHz)	C	27	pF
Thermal Resistance (Typ.)	Rθj-pin	125	°C/W

Part Number	Emitting Color	Emitting Material	Lens-color	CIE12'	s Intensity 7-2007* mA) cd	Luminous Flux CIE127-2007* (I _F =70mA) lm	Wavelength CIE127-2007* λP nm	Viewing Angle 20 1/2
				min.	typ.	typ.		
XSM2MOK983W	Orange	AlGaInP	Water Clear	6 3.2*	8.99 4.79*	8.5*	611*	70°

^{1.}Luminous intensity is measured with an integrating sphere after the device has stabilized.

XDSB7671 V1-X Layout: Maggie L.

 $^{2.0 \, 1/2}$ is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

^{3.}LEDs are binned according to their Luminous intensity.

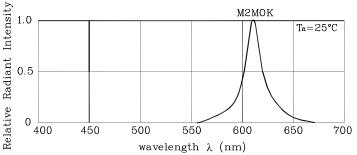
^{*} Luminous intensity / luminous flux value and wavelength are in accordance with CIE127-2007 standards.



Part Number: XSM2MOK983W

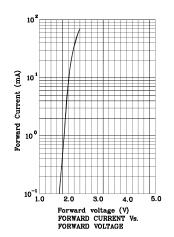
SUPER FLUX LED LAMP

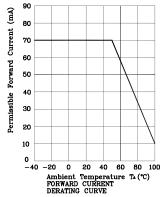




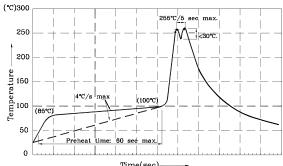
RELATIVE INTENSITY Vs. CIE WAVELENGTH

❖ M2MOK

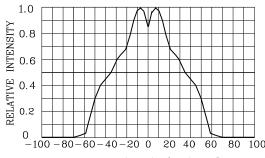




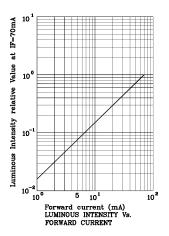
Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)

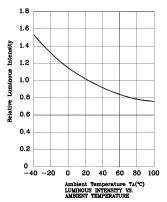


- 1.Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C 2.Peak wave soldering temperature between 245°C ~ 255°C for 3 sec
- (5 sec max). 3.Do not apply stress to the epoxy resin while the temperature is above 85°C. 4. Fixtures should not incur stress on the component when mounting and during soldering process.
 5.SAC 305 solder alloy is recommended.
 6.No more than one wave soldering pass.



OFF AXIS ANGLE(DEGREES) RELATIVE INTENSITY VS OFF AXIS ANGLE





Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength),

the typical accuracy of the sorting process is as follows:

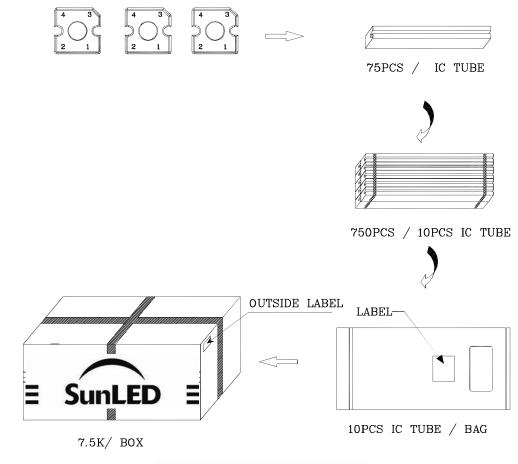
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

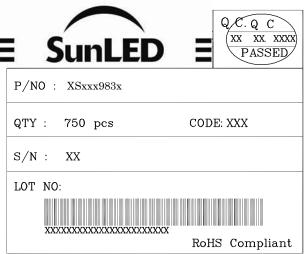
Note: Accuracy may depend on the sorting parameters.



SUPER FLUX LED LAMP

PACKING & LABEL SPECIFICATIONS





TERMS OF USE

- 1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
- 2. Contents within this document are subject to improvement and enhancement changes without notice.
- 3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet. User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
- 4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
- 5. The contents within this document may not be altered without prior consent by SunLED.
- 6. Additional technical notes are available at http://www.SunLEDusa.com/TechnicalNotes.asp