Part Number: XSMO983W

SUPER FLUX LED LAMP

Features

- High current operation for greater luminous output
- Low power consumption and thermal resistance
- Can be used with automatic insertion equipment
- RoHS Compliant

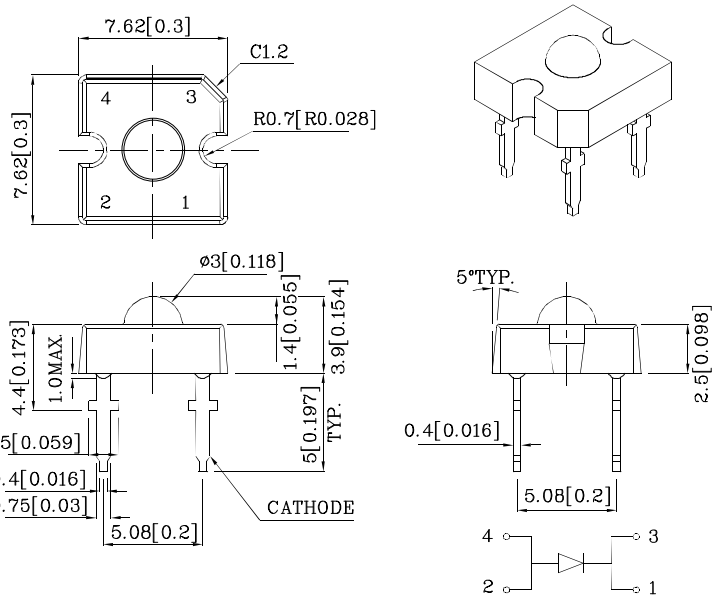
Benefits:

- 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 ±0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

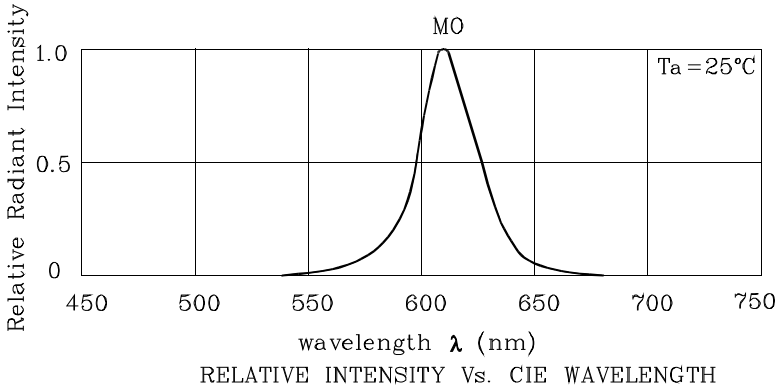
Absolute Maximum Ratings (T_A=25°C)		**MO (AlGaInP)**	**Unit**
Reverse Voltage	V_R	5	V
DC Forward Current	I_F	70	mA
Power Dissipation	P_D	189	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-55 ~ +85	
Lead Solder Temperature [1.5mm Below Seating Plane.][1]		260°C For 5 Seconds	

1.No Reflow soldering .

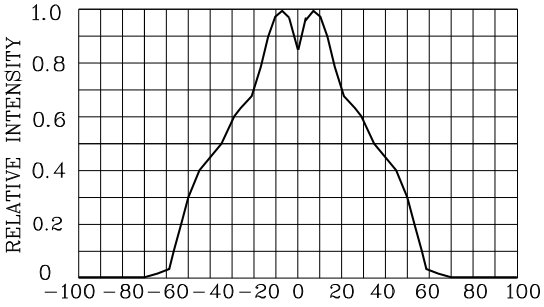
Operating Characteristics (T_A=25°C)		**MO (AlGaInP)**	**Unit**
Forward Voltage (Typ.) (I_F=70mA)	V_F	2.3	V
Forward Voltage (Max.) (I_F=70mA)	V_F	2.7	V
Reverse Current (Max.) (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission CIE127-2007*(Typ.) (I_F=70mA)	λP	610*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) (I_F=70mA)	λD	601*	nm
Spectral Line Full Width At Half Maximum (Typ.) (I_F=70mA)	△λ	29	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	30	pF
Thermal Resistance (Typ.)	Rθj-pin	125	°C/W

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I_F=70mA) cd		Luminous Flux CIE127-2007* (I_F=70mA) lm	Wavelength CIE127-2007* λP nm	Viewing Angle 2θ 1/2
				min.	typ.	typ.		
XSMO983W	Orange	AlGaInP	Water Clear	1.6 1*	2.79 1.6*	2.8*	610*	70°

1.Luminous intensity is measured with an integrating sphere after the device has stabilized.
2.θ 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.

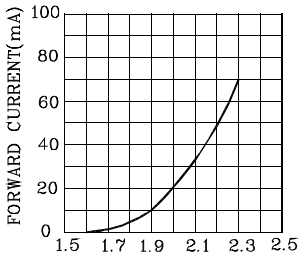


RELATIVE INTENSITY Vs. CIE WAVELENGTH

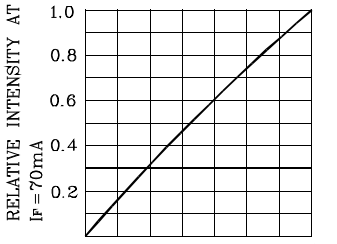


RELATIVE INTENSITY VS OFF AXIS ANGLE

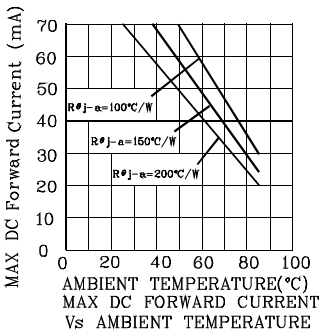
❖ MO



FORWARD CURRENT Vs. FORWARD VOLTAGE

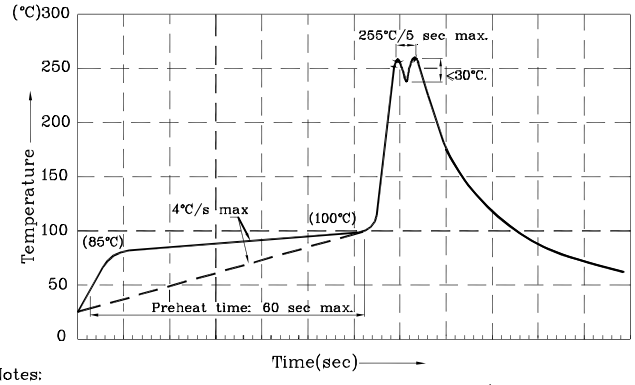


RELATIVE INTENSITY Vs. FORWARD CURRENT



MAX DC FORWARD CURRENT Vs AMBIENT TEMPERATURE

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

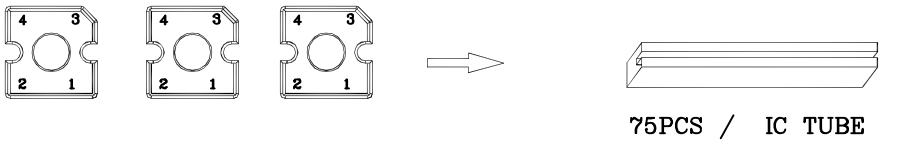


Notes:
1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
3. Do not apply stress 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.

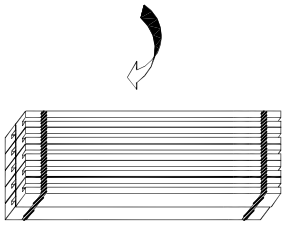
Remarks:

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.

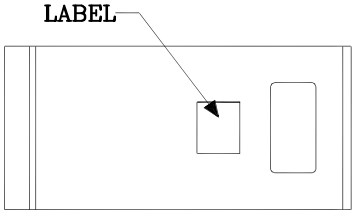
PACKING & LABEL SPECIFICATIONS



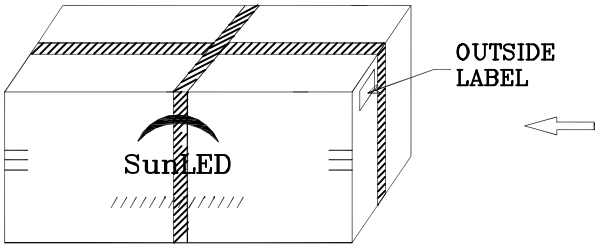
75PCS / IC TUBE



750PCS / 10PCS IC TUBE



10PCS IC TUBE / BAG



7.5K/ BOX