SunLED
www.SunLEDusa.com

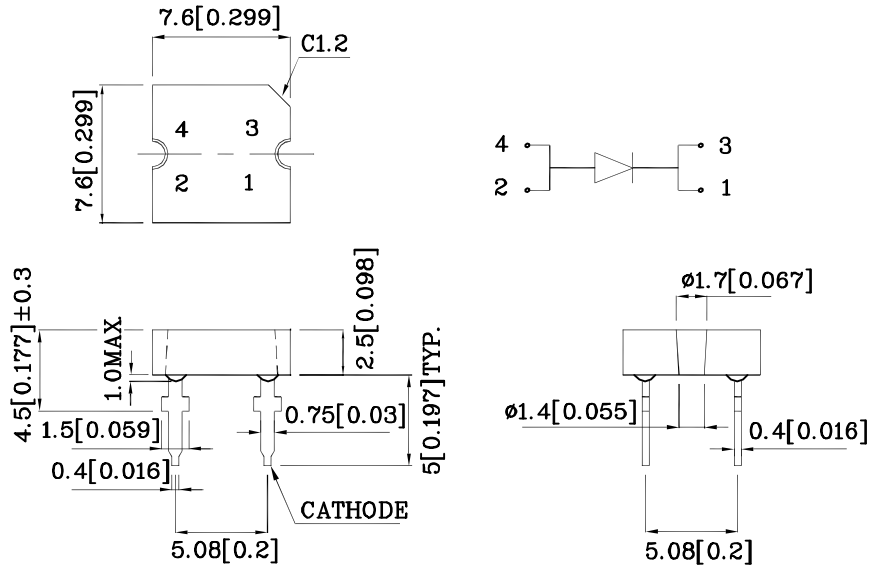
Part Number: XSM2ACR383W

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

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.

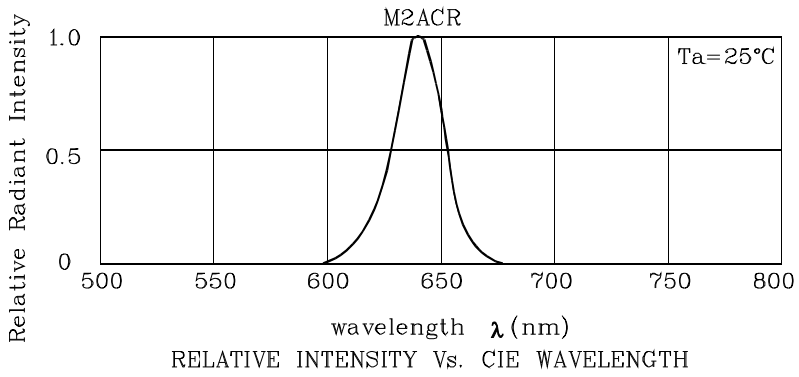
Absolute Maximum Ratings (T_A=25°C)		**M2ACR (AlGaInP)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	150	mA
Power Dissipation	P_D	84	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds		
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds		

Operating Characteristics (T_A=25°C)		**M2ACR (AlGaInP)**	**Unit**
Forward Voltage (Typ.) (I_F=20mA)	V_F	2.2	V
Forward Voltage (Max.) (I_F=20mA)	V_F	2.8	V
Reverse Current (Max.) (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I_F=20mA)	λP	640*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I_F=20mA)	λD	625*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=20mA)	△λ	25	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	27	pF

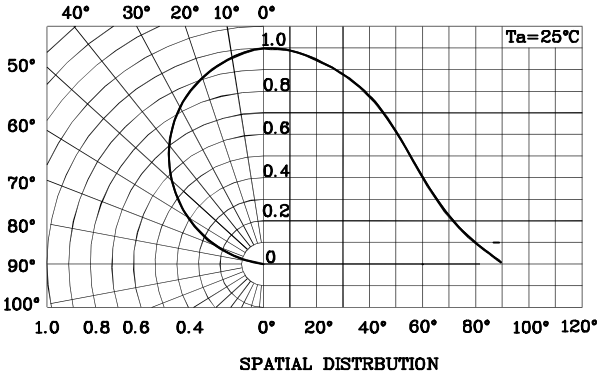
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I_F=20mA) mcd		Luminous Flux CIE127-2007* (I_F=20mA) mlm	Wavelength CIE127-2007* λP nm	Viewing Angle 2θ 1/2
				min.	typ.	typ.		
XSM2ACR383W	Red	AlGaInP	Water Clear	400 200*	895 500*	1600*	640*	110°

1. θ 1/2 Is the angle from optical centerline where the luminous intensity is 1/2 the optical peak value.
2. Drive current between 10mA and 30mA are recommended for long term performance.
3. Operation at current below 10mA is not recommended.
4. LEDs are binned according to their Luminous intensity.

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

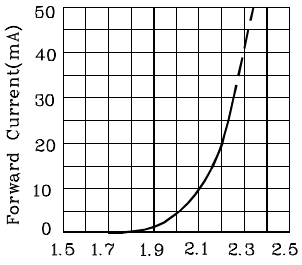


RELATIVE INTENSITY Vs. CIE WAVELENGTH

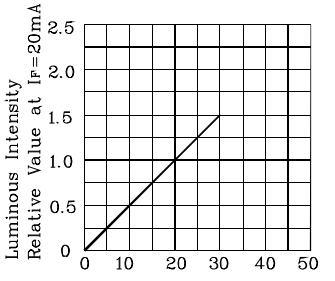


SPATIAL DISTRBUTION

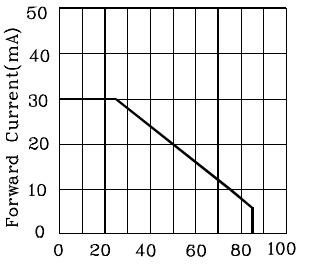
❖ M2ACR



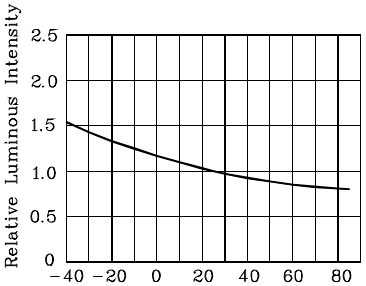
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

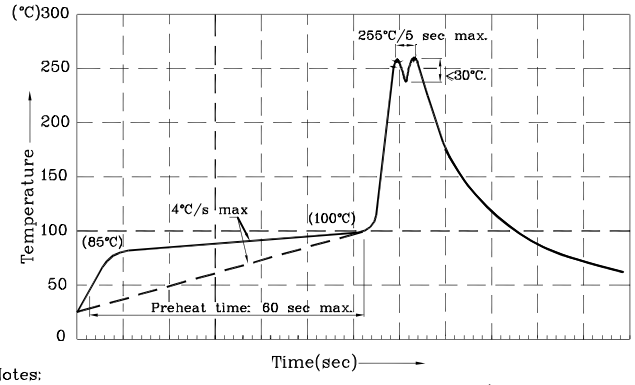


FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY 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.

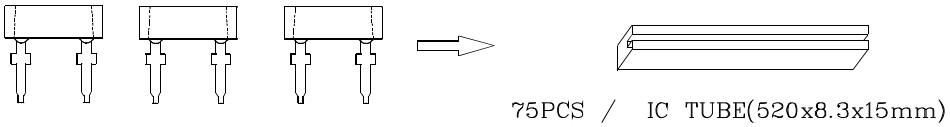
Remarks:

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:

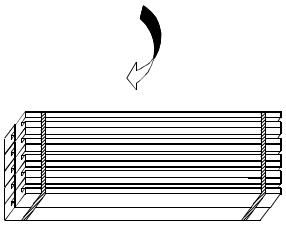
1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

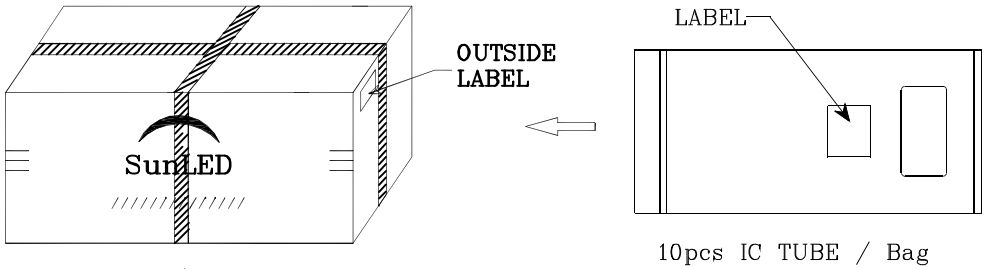
PACKING & LABEL SPECIFICATIONS



75PCS / IC TUBE(520x8.3x15mm)



750pcs / 10pcs IC TUBE



7.5K/ BOX

10pcs IC TUBE / Bag