

Features

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



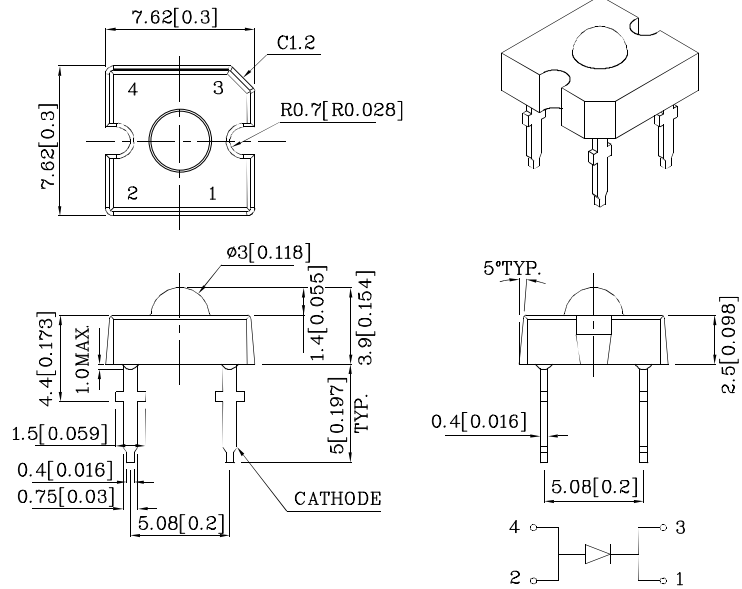
Benefits:

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

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$)		M2ACR (AlGaInP)	Unit
Reverse Voltage	V_R	5	V
DC Forward Current	I_F	70	mA
Power Dissipation	P_D	210	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	T_{stg}	-55 ~ +85	
Lead Solder Temperature [1.5mm Below Seating Plane.][1]		260°C For 5 Seconds	

1.No Reflow soldering .

Operating Characteristics ($T_A=25^\circ\text{C}$)		M2ACR (AlGaInP)	Unit
Forward Voltage (Min.) ($I_F=70\text{mA}$)	V_F	2.2	V
Forward Voltage (Typ.) ($I_F=70\text{mA}$)	V_F	2.4	V
Forward Voltage (Max.) ($I_F=70\text{mA}$)	V_F	3.0	V
Reverse Current (Max.) ($V_R=5\text{V}$)	I_R	10	μA
Wavelength of Peak Emission CIE127-2007*(Typ.) ($I_F=70\text{mA}$)	λ_P	640*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) ($I_F=70\text{mA}$)	λ_D	625*	nm
Spectral Line Full Width At Half Maximum (Typ.) ($I_F=70\text{mA}$)	$\Delta\lambda$	25	nm
Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$)	C	27	pF
Thermal Resistance (Typ.)	$R\theta_{j-pin}$	125	°C/W

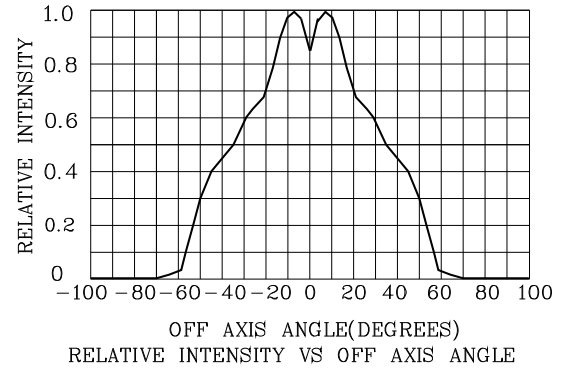
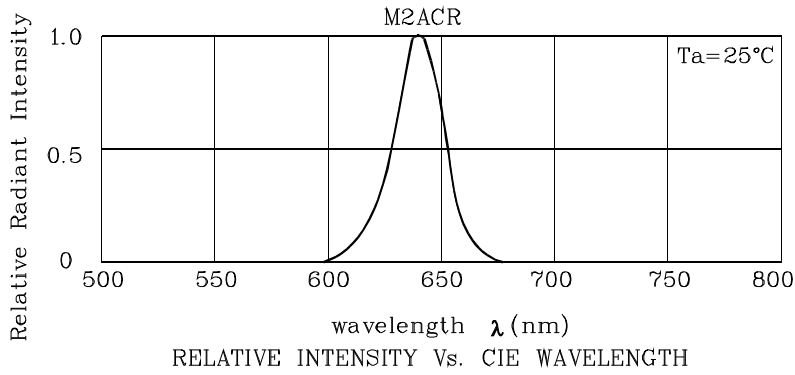
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* ($I_F=70\text{mA}$) cd		Luminous Flux CIE127-2007* ($I_F=70\text{mA}$) lm	Wavelength CIE127-2007* λ_P nm	Viewing Angle 2 θ 1/2
				min.	typ.			
XSM2ACR983W	Red	AlGaInP	Water Clear	6 3.1*	9.99 4.8*	6.7*	640*	70°

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

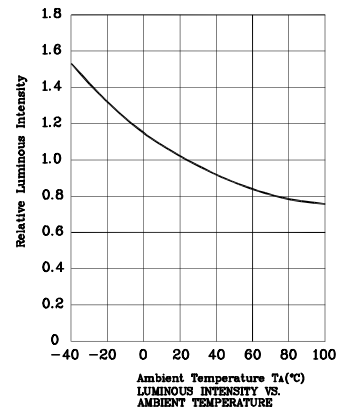
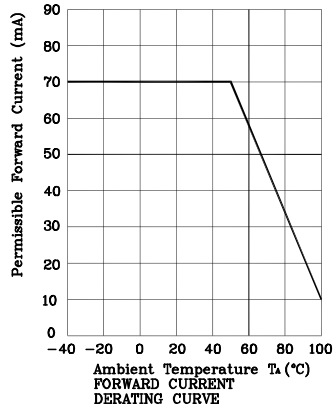
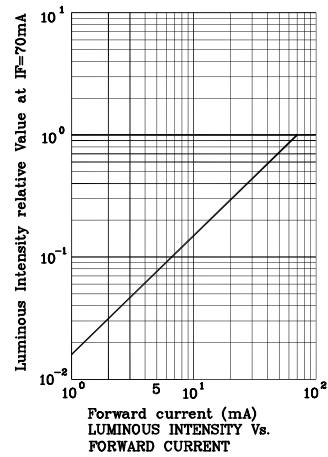
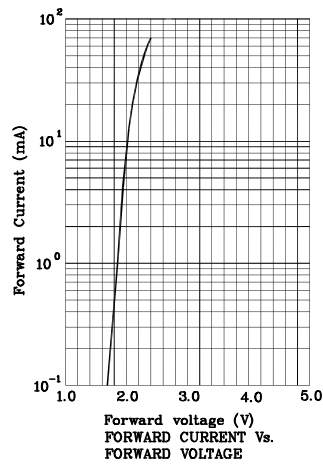
2. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.

3.LEDs are binned according to their Luminous intensity.

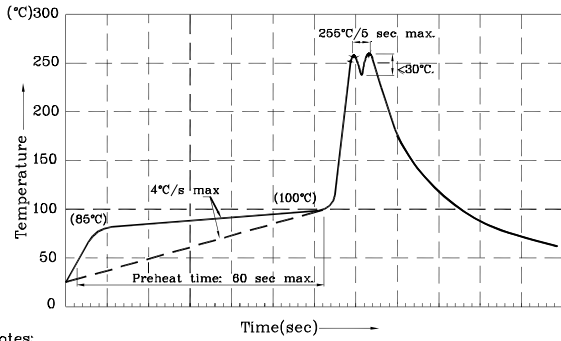
* Luminous intensity / luminous flux value and wavelength are in accordance with CIE127-2007 standards.



❖ M2ACR



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.

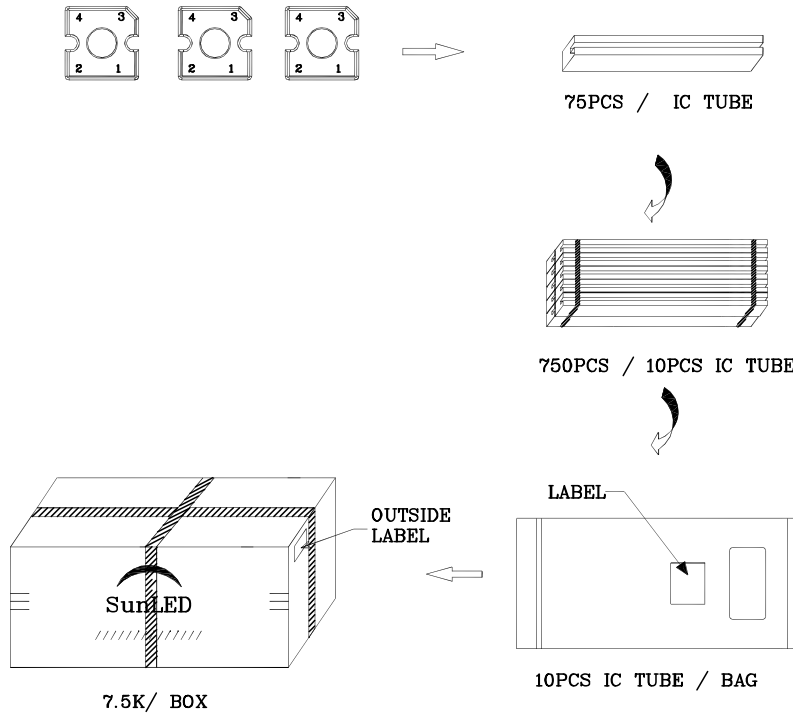

Remarks:

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

Q.C. Q.C
XX XX XXXX
PASSED

P/NO : XSxxx983x	
QTY : 750 pcs	CODE: XXX
S/N : XX	
LOT NO:	
 XXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	