Part Number: XSM2ACR120W

SnapLED

Features

- High current operation for greater luminous output
- Rivet design allows for solderless mounting
- Low power consumption and thermal resistance
- Can be used with automatic insertion equipment
- RoHS compliant.

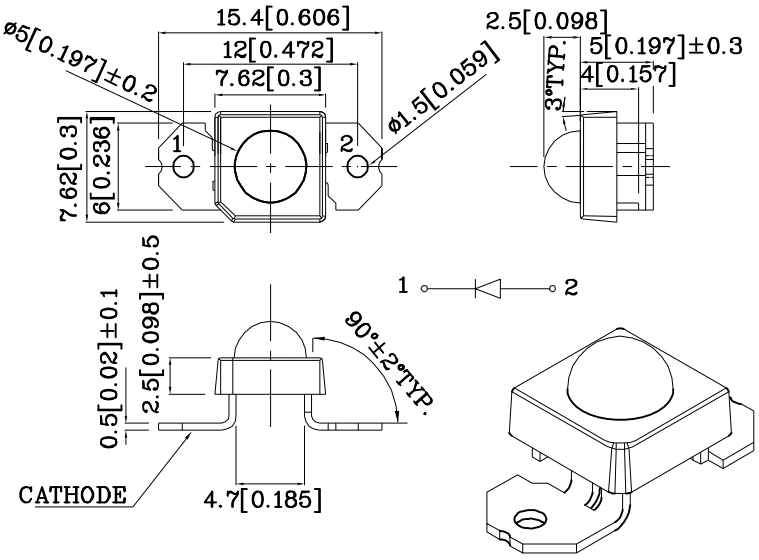
Benefits:

- 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



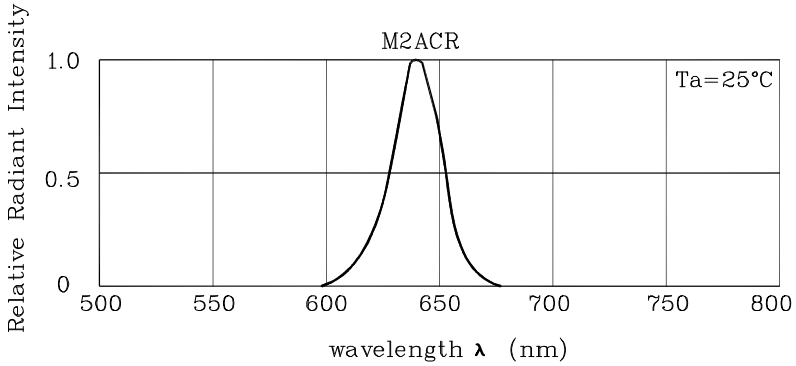
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T_A=25°C)		**M2ACR (AlGaInP)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	70	mA
Power Dissipation	P_D	245	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-55 ~ +85	

Operating Characteristics (T_A=25°C)		**M2ACR (AlGaInP)**	**Unit**
Forward Voltage (Typ.) (I_F=70mA)	V_F	2.8	V
Forward Voltage (Max.) (I_F=70mA)	V_F	3.5	V
Reverse Current (Max.) (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission (Typ.) (I_F=70mA)	λP	640	nm
Wavelength of Dominant Emission (Typ.) (I_F=70mA)	λD	625	nm
Spectral Line Full Width At Half Maximum (Typ.) (I_F=70mA)	△λ	25	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	27	pF
Thermal Resistance (Typ.)	Rθj-pin	125	°C/W

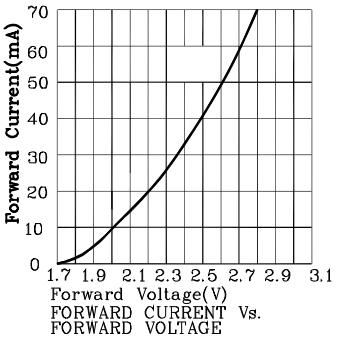
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=70mA) cd		Luminous Flux (IF=70mA) lm	Wavelength nm λP	Viewing Angle 2θ 1/2
				min.	typ.	typ.		
XSM2ACR120W	Red	AlGaInP	Water Clear	5	7.49	6	640	85°

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.

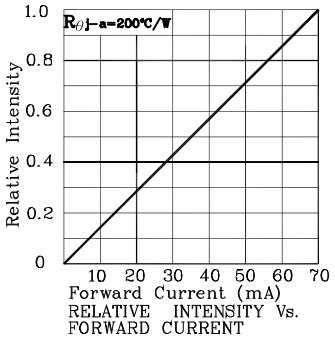


RELATIVE INTENSITY Vs. WAVELENGTH

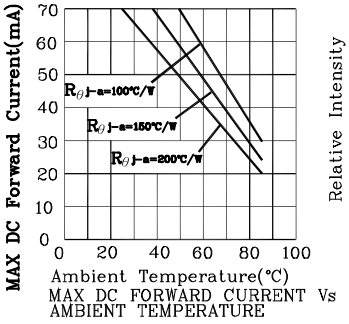
❖ **M2ACR**



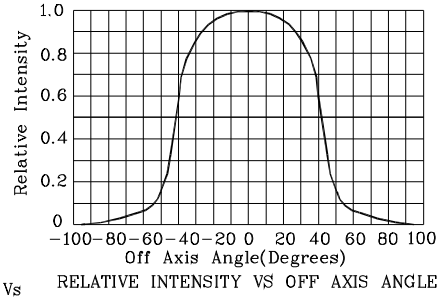
FORWARD CURRENT Vs. FORWARD VOLTAGE



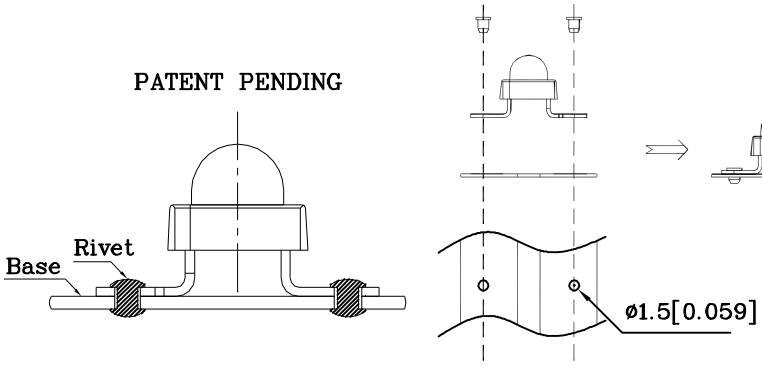
RELATIVE INTENSITY Vs. FORWARD CURRENT

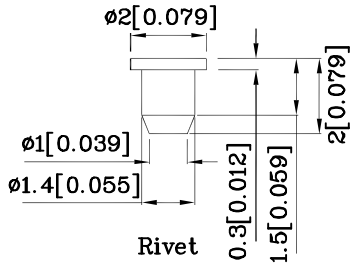


MAX DC FORWARD CURRENT Vs AMBIENT TEMPERATURE

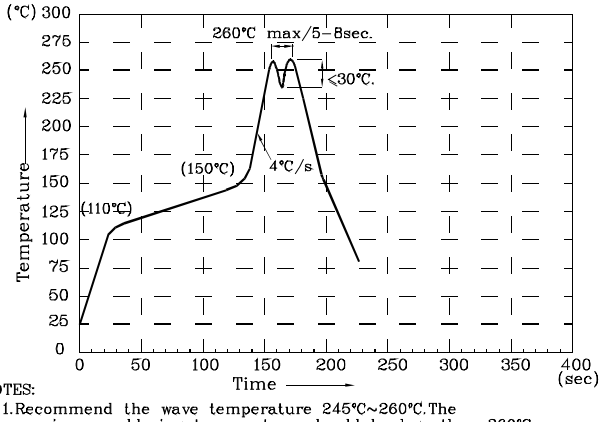


RELATIVE INTENSITY VS OFF AXIS ANGLE





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



NOTES:

1. Recommend the wave temperature 245°C~260°C. The maximum soldering temperature should be less than 260°C.
2. Do not apply stress on epoxy resins when temperature is over 85°C.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. During wave soldering, the PCB top-surface temperature should be kept below 105°C.
5. No more than once.

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