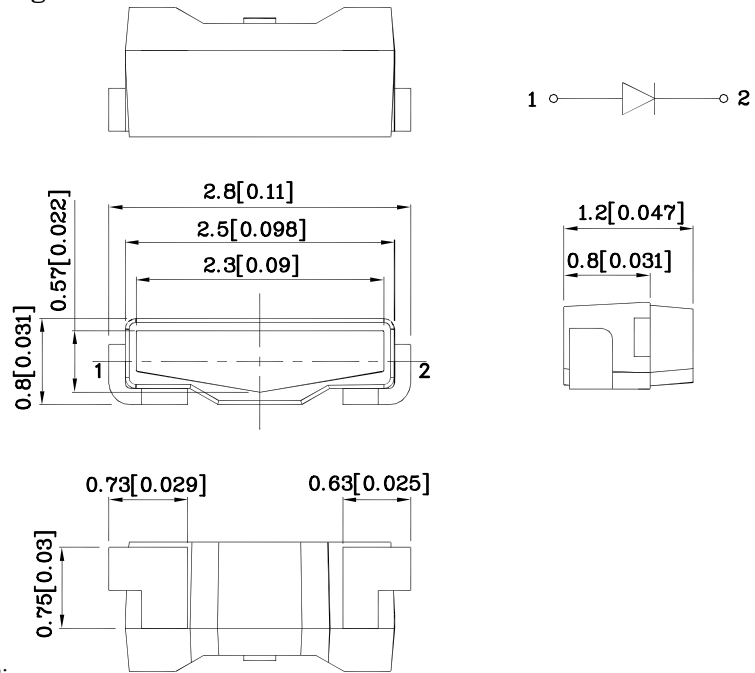


Features

- Ideal for indication light on hand held products
- Long life and robust package
- Variety of lens types and color choices available
- Package : 2000pcs / reel
- Moisture sensitivity level : level 3
- RoHS compliant



Package Schematics



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.1 (0.0039") 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
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	T_{stg}	-40 ~ +85	

Operating Characteristics ($T_A=25^\circ\text{C}$)		M2ACR (AlGaInP)	Unit
Forward Voltage (Typ.) ($I_F=20\text{mA}$)	V_F	2.2	V
Forward Voltage (Max.) ($I_F=20\text{mA}$)	V_F	2.8	V
Reverse Current (Max.) ($V_R=5\text{V}$)	I_R	10	μA
Wavelength of Peak Emission (Typ.) ($I_F=20\text{mA}$)	λ_P	640	nm
Wavelength of Dominant Emission (Typ.) ($I_F=20\text{mA}$)	λ_D	625	nm
Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$)	$\Delta\lambda$	25	nm
Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$)	C	27	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity ($I_F=20\text{mA}$) mcd		Wavelength nm λ_P	Viewing Angle 2 θ 1/2
				min.	typ.		
ZM2ACR81FS	Red	AlGaInP	Water Clear	1300	1790	640	110°

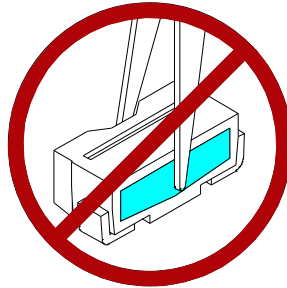


Handling Precautions

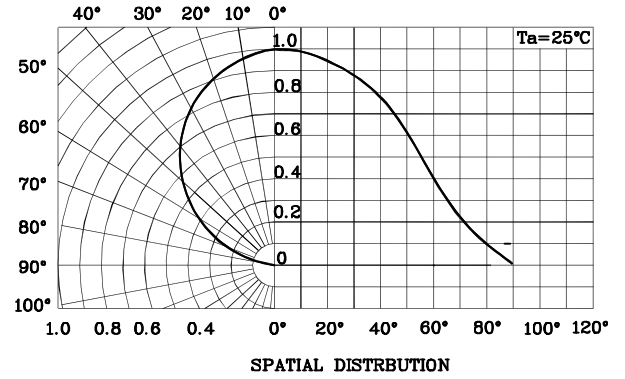
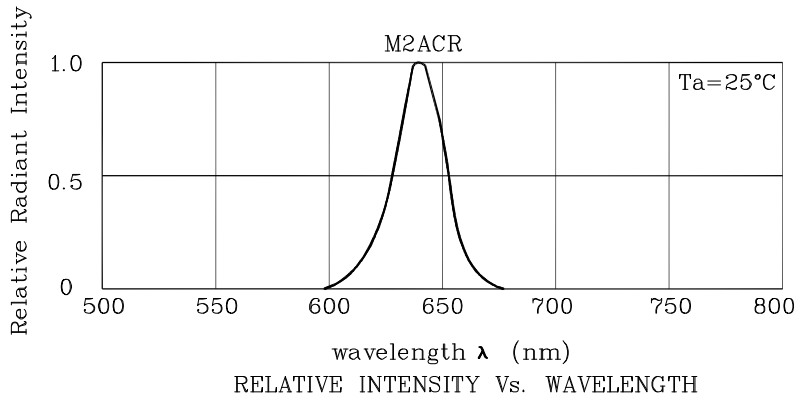
Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might lead to damage and premature failure of the LED.

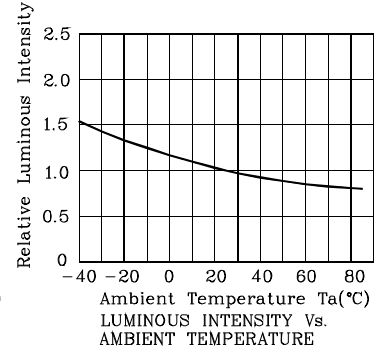
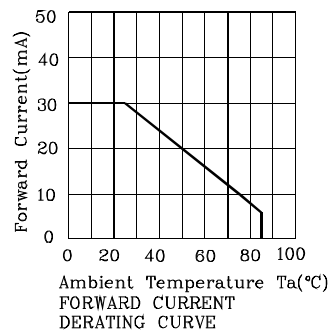
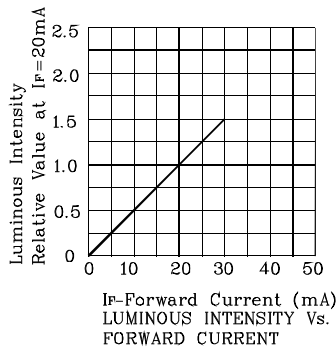
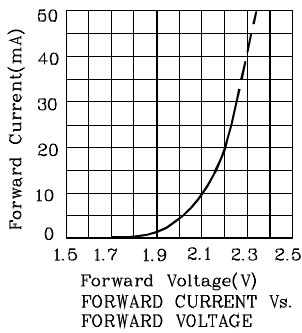
1. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.



2. As silicone encapsulation is permeable to gases, some corrosive substances such as H_2S might corrode silver plating of leadframe. Special care should be taken if an LED with silicone encapsulation is to be used near such substances.

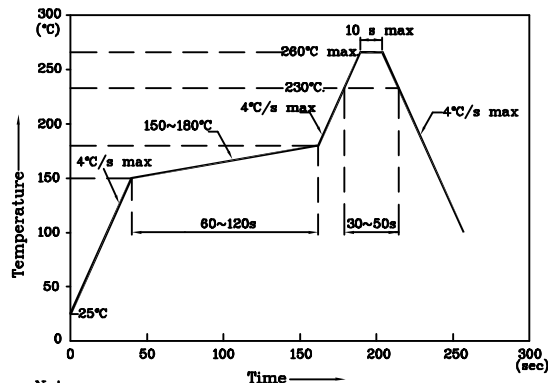


❖ M2ACR



LED is recommended for reflow soldering and soldering profile is shown below.

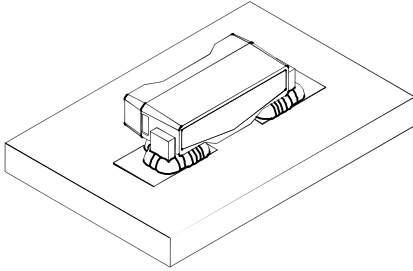
Reflow Soldering Profile for SMD Products (Pb-Free Components)



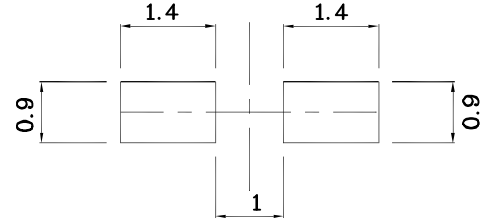
1. Maximum soldering temperature should not exceed 260°C
2. Recommended reflow temperature: 145°C-260°C
3. Do not put stress to the epoxy resin during high temperatures conditions



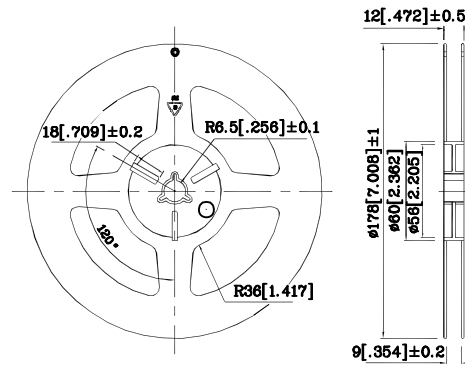
❖ The device has a single mounting surface.
The device must be mounted according to the specifications.



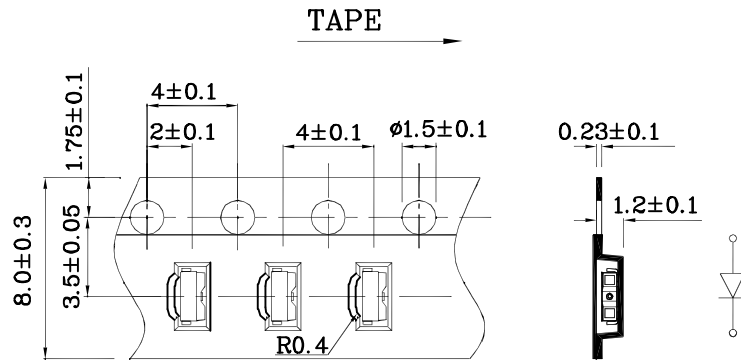
❖ Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.1)



❖ Reel Dimension



❖ Tape Specification (Units : mm)



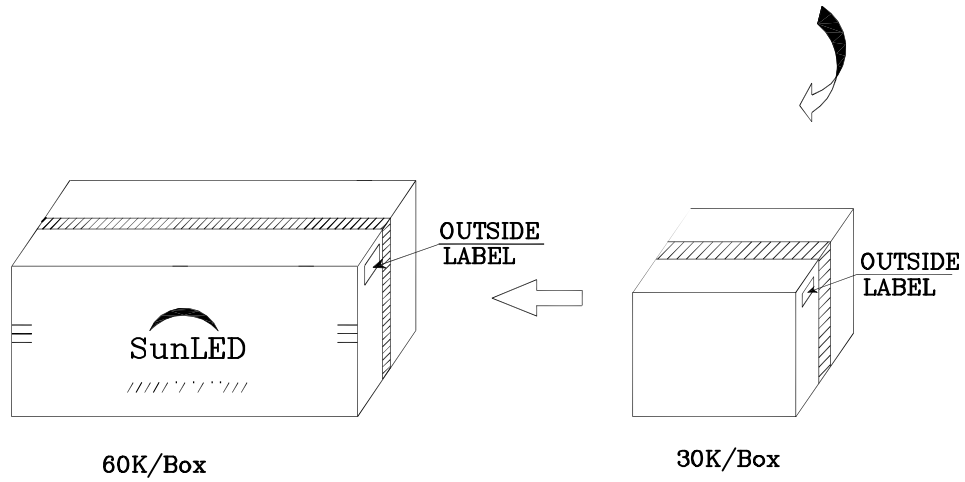
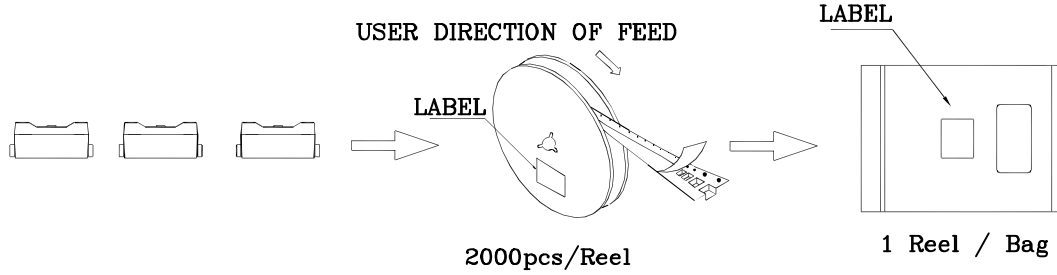

Remarks:

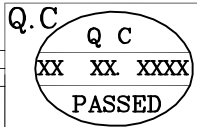

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: $\pm 1\text{nm}$
2. Luminous intensity / luminous flux: $\pm 15\%$
3. Forward Voltage: $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS

	
P/NO : Zxx81x	
QTY : 2000 pcs	CODE: XXX
S/N : XX	
LOT NO:	
	
RoHS Compliant	