

Excellent Integrated System Limited

Stocking Distributor

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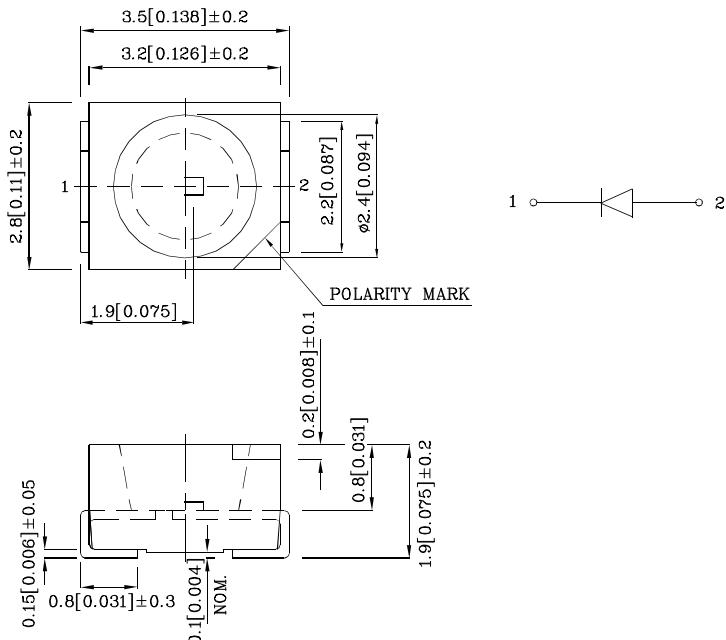
[XZM2ACY45SB](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

Features

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- Black case
- RoHS compliant


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 ($T_A=25^\circ\text{C}$)		M2ACY (AlGaInP)	Unit
Reverse Voltage	V_R	5	V
Forward Current	I_F	50	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	140	mA
Power Dissipation	P_D	125	mW
Operating Temperature	T_A	-40 ~ +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ +85	

Operating Characteristics ($T_A=25^\circ\text{C}$)		M2ACY (AlGaInP)	Unit
Forward Voltage (Typ.) ($I_F=20\text{mA}$)	V_F	2	V
Forward Voltage (Max.) ($I_F=20\text{mA}$)	V_F	2.5	V
Reverse Current (Max.) ($V_R=5\text{V}$)	I_R	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) ($I_F=20\text{mA}$)	λP	590*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) ($I_F=20\text{mA}$)	λD	590*	nm
Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$)	$\Delta\lambda$	20	nm
Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$)	C	45	pF

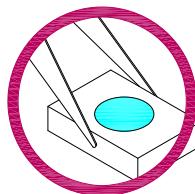
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* ($I_F=20\text{mA}$) mcd	Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
min. typ.						
XZM2ACY45SB	Yellow	AlGaInP	Water Clear	200*	317*	590* 120°

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

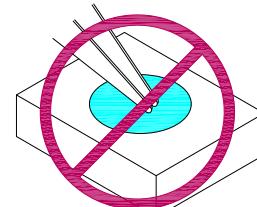
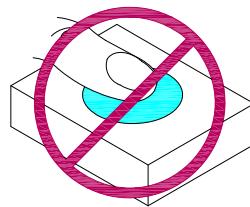
Handling Precautions

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.

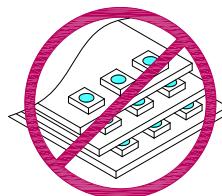
1. Handle the component along the side surfaces by using forceps or appropriate tools.



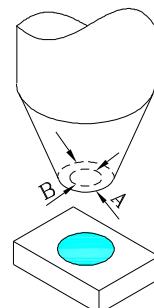
2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.



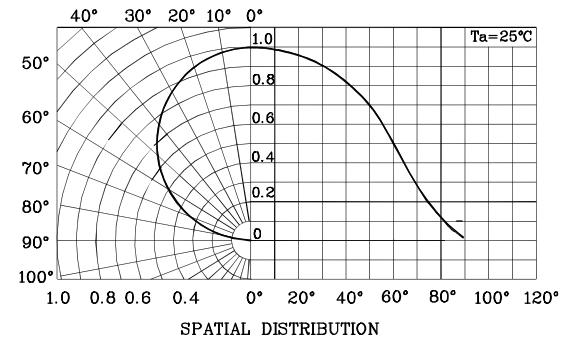
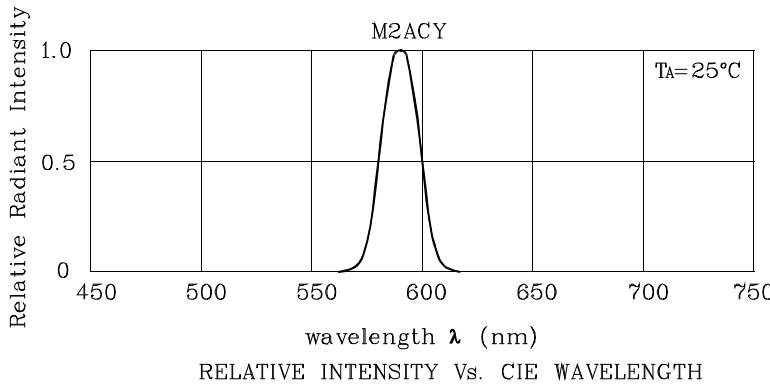
3. Do not stack together assembled PCBs containing exposed LEDs. Impact may scratch the silicone lens or damage the internal circuitry.



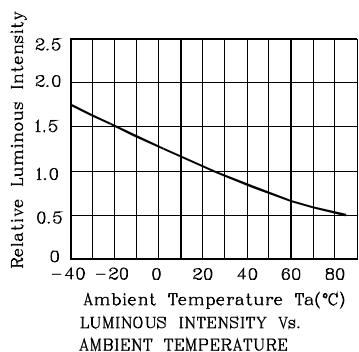
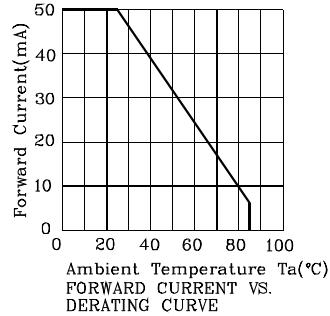
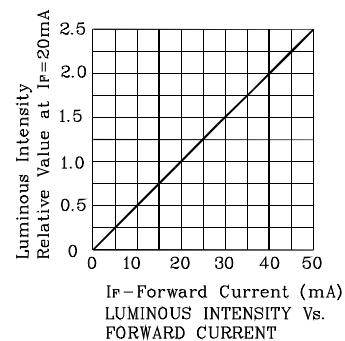
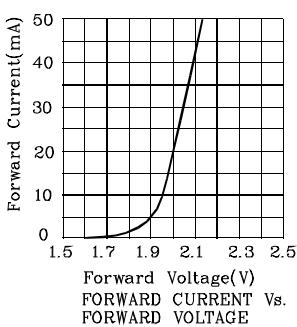
- 4.1. The inner diameter of the SMD pickup nozzle should not exceed the size of the LED to prevent air leaks.
- 4.2. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
- 4.3. The dimensions of the component must be accurately programmed in the pick-and-place machine to insure precise pickup and avoid damage during production.



5. As silicone encapsulation is permeable to gases, some corrosive substances such as H₂S might corrode silver plating of lead-frame. Special care should be taken if an LED with silicone encapsulation is to be used near such substances.

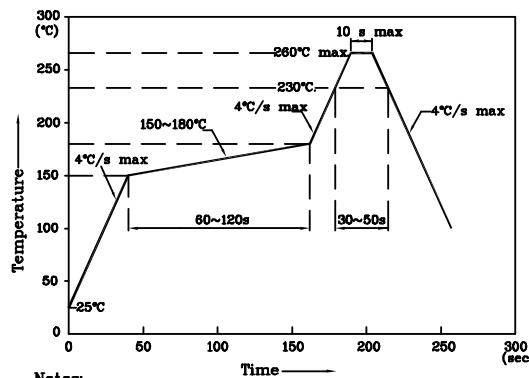


❖ M2ACY

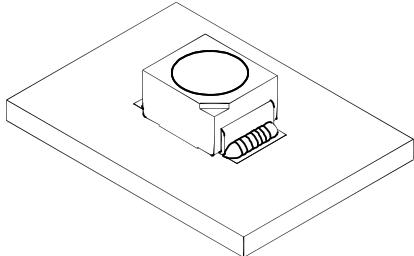


LED is recommended for reflow soldering and soldering profile is shown below.

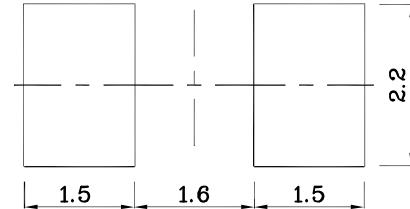
Reflow Soldering Profile for SMD Products (Pb-Free Components)



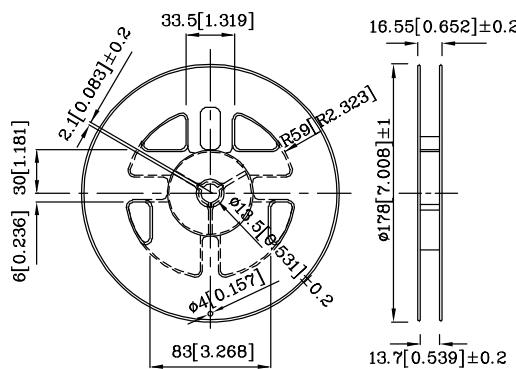
❖ The device has a single mounting surface.
 The device must be mounted according to
 the specifications.



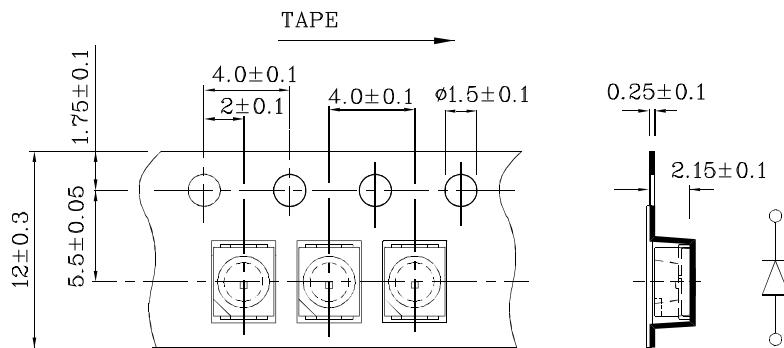
❖ Recommended Soldering Pattern
 (Units : mm; Tolerance: ± 0.1)



❖ Reel Dimension



❖ Tape Specification (Units : mm)



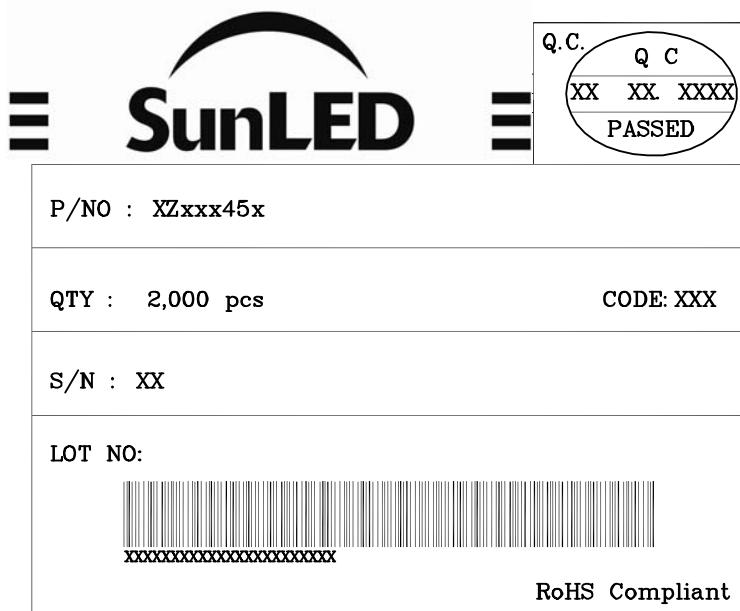
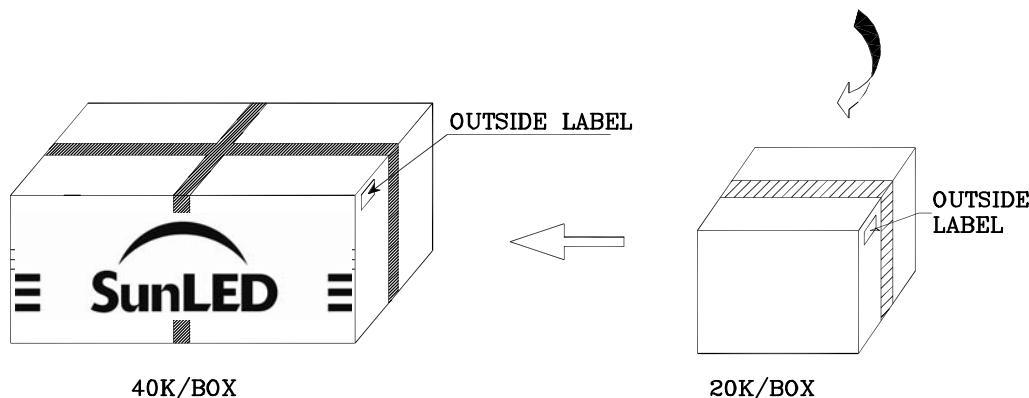
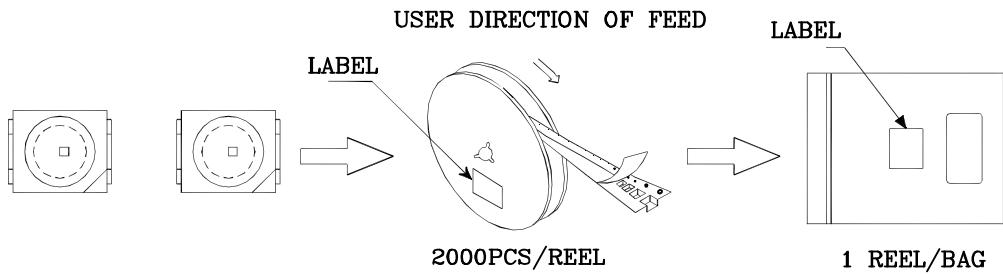
Remarks:

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



TERMS OF USE

1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
2. Contents within this document are subject to improvement and enhancement changes without notice.
3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet. User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
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