Part Number: XZM2ACY96FS

3.5x2.7mm SURFACE MOUNT LED LAMP

Features

• Ideal for indication light on hand held products

• Long life and robust package

• Variety of lens types and color choices available

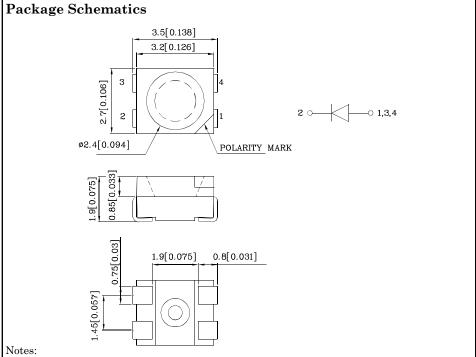
ullet Package : 1500pcs / reel

• Moisture sensitivity level : level 3

• RoHS compliant







- 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°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}	140	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85		

Operating Characteristics (T _A =25°C)		M2ACY (AlGaInP)	Unit	
Forward Voltage (Typ.) (I _F =50mA)	V_{F}	2.3	V	
Forward Voltage (Max.) (I _F =50mA)	V_{F}	2.8	V	
Reverse Current (Max.) (V _R =5V)	I_R	10	uA	
Wavelength of Peak Emission (Typ.) (I _F =50mA)	λΡ	590	nm	
Wavelength of Dominant Emission (Typ.) $(I_F=50 \text{mA})$	λD	589	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =50mA)	$\triangle \lambda$	20	nm	
Capacitance (Typ.) (V _F =0V, f=1MHz)	C	45	pF	

Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} \text{Luminous} \\ \text{Intensity} \\ \text{(I}_{\text{F}}\text{=}50\text{mA)} \\ \text{mcd} \end{array}$		Wavelength nm λΡ	Viewing Angle 20 1/2
				min.	typ.		
XZM2ACY96FS	Yellow	AlGaInP	Water Clear	1000	1590	640	120°

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3.5x2.7mm SURFACE MOUNT LED LAMP

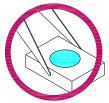


Handling Precautions

www.SunLEDusa.com

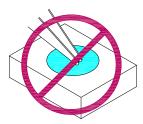
Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force. As a result, special handling precautions need to be observed during assembly using 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.

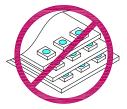


2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.

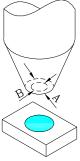




3. Do not stack together assembled PCBs containing exposed LEDs. Impact may scratch the silicone lens or damage the internal circuitry.



- 4.1. The outer diameter of the SMD pickup nozzle should not exceed the size of the LED to prevent air leaks. The inner diameter of the nozzle should be as large as possible.
- 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.

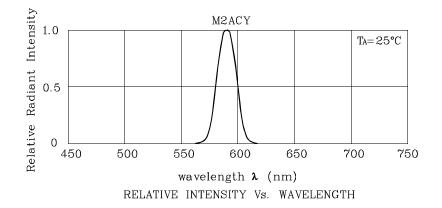


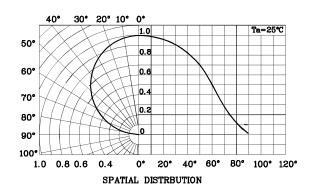
5. As silicone encapsulation is permeable to gases, some corrosive substances such as H₂S might corrode silver plating of leadframe. Special care should be taken if an LED with silicone encapsulation is to be used near such substances.

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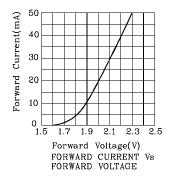


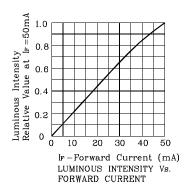


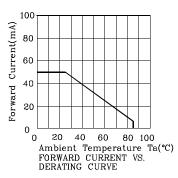


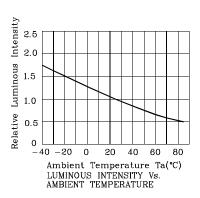


❖ M2ACY



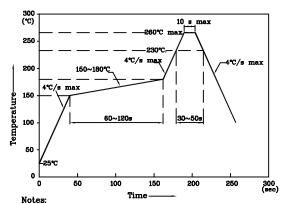






LED is recommended for reflow soldering and soldering profile is shown below.

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

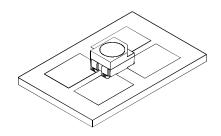
Apr 20,2011

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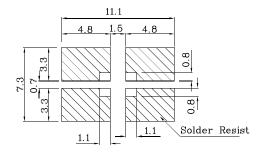




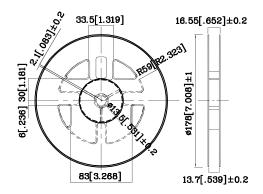
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



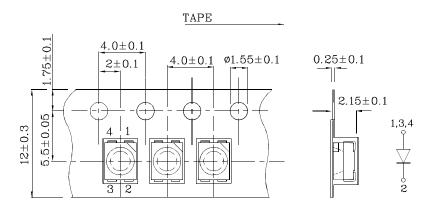
❖ Recommended Soldering Pattern (Units:mm; Tolerance: ± 0.1)



❖ 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: +/-1nm

2. Luminous intensity / luminous flux: +/-15%

3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

Apr 20,2011

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PACKING & LABEL SPECIFICATIONS

