

 $3.0 \mathrm{x} 1.0 \mathrm{mm}$ INFRARED EMITTING DIODE

Features

• Long life and robust package

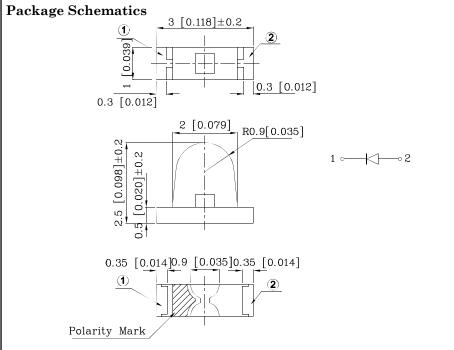
• Standard Package: 2,000pcs/ Reel

 \bullet MSL (Moisture Sensitivity Level): 3

ullet RoHS compliant







Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.15(0.006")$ unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T _A =25°C)		TNI (GaAs)	Unit	
Reverse Voltage	V_{R}	5	V	
Forward Current	I_{F}	50	mA	
Forward Current (Peak) 1/100 Duty Cycle 10us Pulse Width	i_{FS}	1200	mA	
Power Dissipation	P_D	80	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85		

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

Mar 25,2016

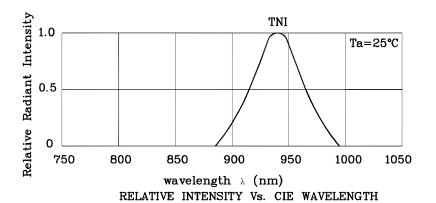
Operating Characteristics (T _A =25°C)		TNI (GaAs)	Unit	
Forward Voltage (Typ.) (I _F =20mA)	V_{F}	1.2	V	
Forward Voltage (Max.) (I _F =20mA)	V_{F}	1.6	V	
Reverse Current (Max.) $(V_R=5V)$	I_{R}	10	uA	
Wavelength of Peak Emission CIE127-2007* (Typ.) (I _F =20mA)	λΡ	940*	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	$\triangle \lambda$	50	nm	
Capacitance (Typ.) (V _F =0V, f=1MHz)	С	90	pF	

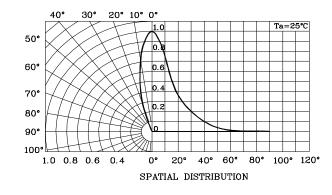
Part Number	Emitting Material	Lens-color	Radiant Intensity CIE127-2007* (Po=mW/sr) @20mA		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2	
			min.	typ.			
XZTNI56W-1	GaAs	Water Clear	2 1.2*	4.8 2.3*	940*	30°	

^{*}Radiant intensity value and wavelength are in accordance with CIE127-2007 standards.

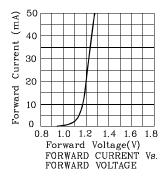


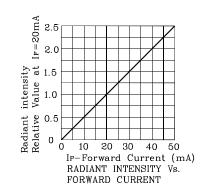


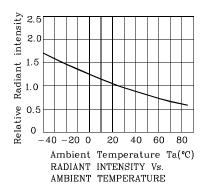




❖ TNI

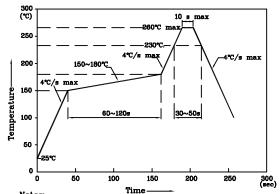






LED is recommended for reflow soldering and soldering profile is shown below.

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

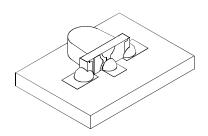


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

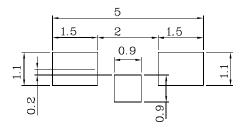




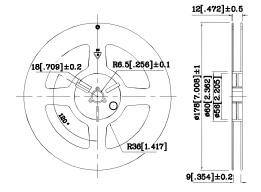
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



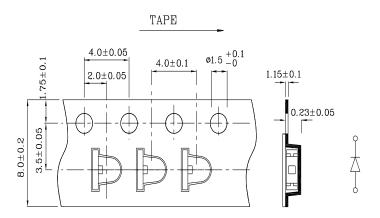
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



❖ Reel Dimension



❖ Tape Specification (Units:mm)



Remarks:

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

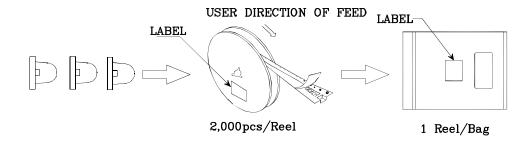
- 1. Radiant Intensity / Luminous Flux: +/-15%
- 2. Forward Voltage: +/-0.1V

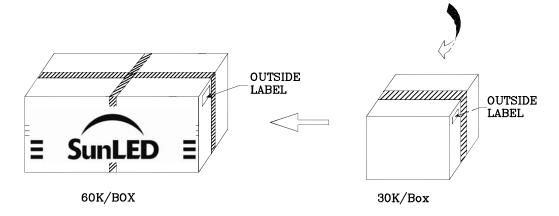
Note: Accuracy may depend on the sorting parameters

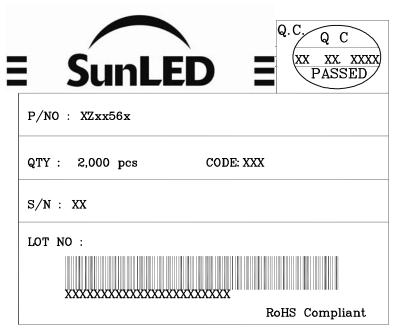




PACKING & LABEL SPECIFICATIONS







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.
- 4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
- 5. The contents within this document may not be altered without prior consent by SunLED.
- 6. Additional technical notes are available at http://www.SunLEDusa.com/TechnicalNotes.asp

Mar 25,2016

XDSA5031 V9-X Layout: Maggie L.