



 3.2×1.6 mm Infrared Emitting Diode

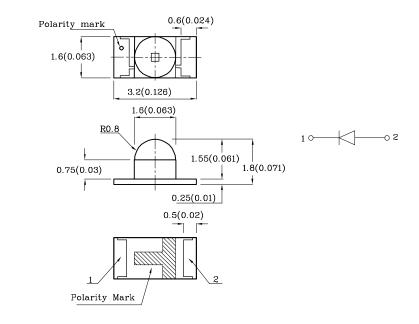
Features

- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- \bullet MSL (Moisture Sensitivity Level): 3
- Halogen-free
- RoHS compliant





Package Schematics



Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.2(0.008")$ 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	90	mW
Operating Temperature	$T_{\rm A}$	-40 ~ +85	$^{\circ}\mathrm{C}$
Storage Temperature	Tstg	-40 ~ +85	C

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)

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	μА
Wavelength of Peak Emission CIE127-2007*(Typ.) (I _F =20mA)	λР	940*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	Δλ	50	nm
Capacitance (Typ.) (V _F =0V, f=1MHz)	С	90	pF

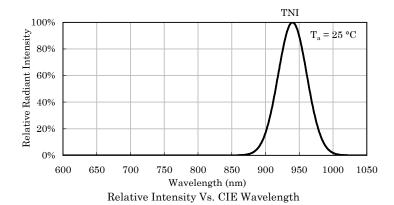
Part Number	Emitting Material	Lens-color	Radiant Intensity CIE127-2007* (Po=mW/sr) @20mA		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
			min.	typ.		
XZTNI55W-3	GaAs	Water Clear	5 2*	9 4.8*	940*	40°

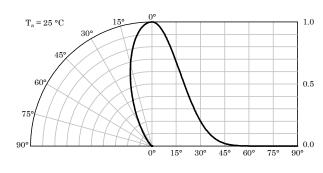
^{*}Radiant Intensity value and wavelength are in accordance with CIE127-2007 standards.

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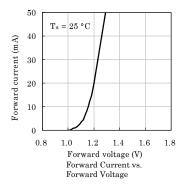


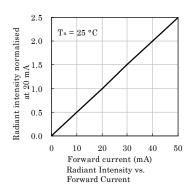


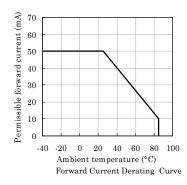


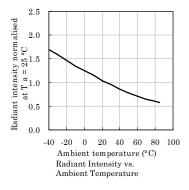
Spatial Distribution

❖ TNI



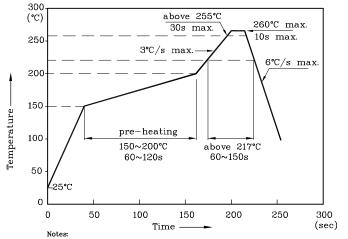






LED is recommended for reflow soldering and soldering profile is shown below.

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



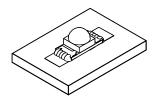
- 1. All temperatures refer to the center of the package, measured on the package body surface facing up during reflow.
- 2. Do not apply any stress to the LED during high temperature conditions.

 3. Maximum number of soldering passes: 2

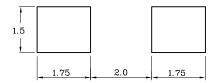




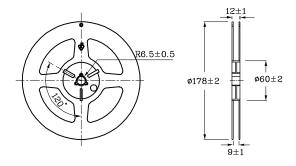
♦ The device has a single mounting surface. The device must be mounted according to the specifications.



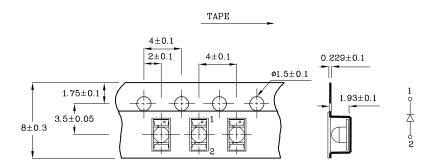
♦ Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



❖ Reel Dimension (Units:mm)



❖ 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:

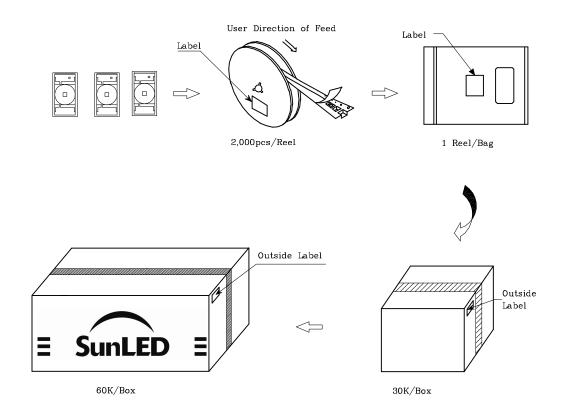
- 1. Radiant Intensity / Luminous Flux: +/-15%
- 2. Forward Voltage: +/-0.1V

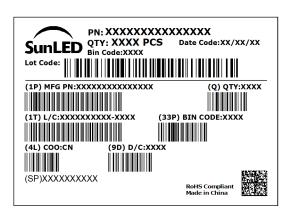
Note: Accuracy may depend on the sorting parameters





PACKING & LABEL SPECIFICATIONS





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