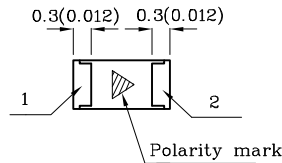
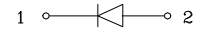
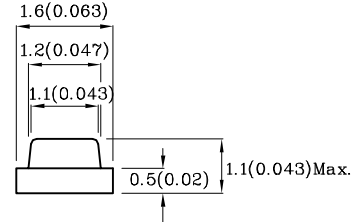
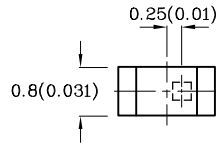


## Features

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



## Package Schematics



### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$  unless otherwise noted.
3. Specifications are subject to change without notice.

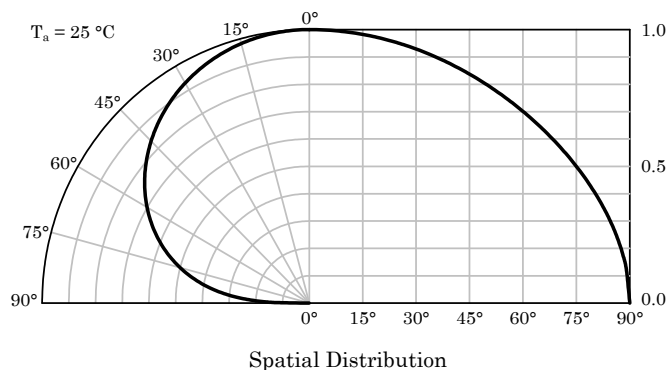
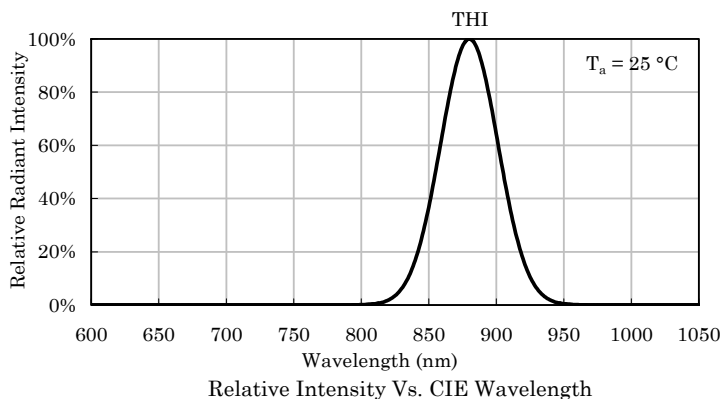
Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ )		THI (GaAlAs)	Unit
Reverse Voltage	$V_R$	5	V
Forward Current	$I_F$	50	mA
Forward Current (Peak) 1/100 Duty Cycle 10 $\mu$ s Pulse Width	$i_{FS}$	1200	mA
Power Dissipation	$P_D$	85	mW
Operating Temperature	$T_A$	-40 ~ +85	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-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)

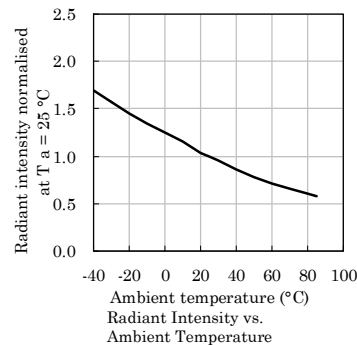
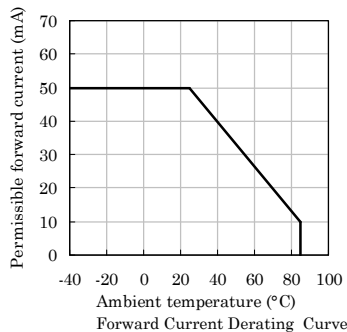
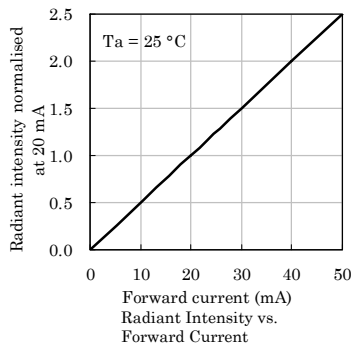
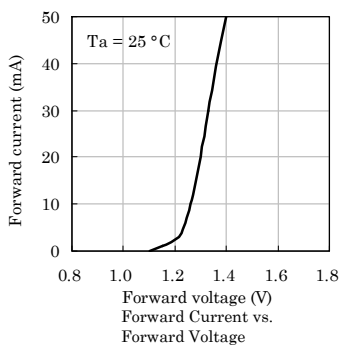
Operating Characteristics ( $T_A=25^\circ\text{C}$ )		THI (GaAlAs)	Unit
Forward Voltage (Typ.) ( $I_F=20\text{mA}$ )	$V_F$	1.3	V
Forward Voltage (Max.) ( $I_F=20\text{mA}$ )	$V_F$	1.6	V
Reverse Current (Max.) ( $V_R=5\text{V}$ )	$I_R$	10	$\mu\text{A}$
Wavelength of Peak Emission CIE127-2007* (Typ.) ( $I_F=20\text{mA}$ )	$\lambda_P$	880*	nm
Spectral Line Full Width At Half-Maximum (Typ.) ( $I_F=20\text{mA}$ )	$\Delta\lambda$	50	nm
Capacitance (Typ.) ( $V_F=0\text{V}$ , $f=1\text{MHz}$ )	C	90	pF

Part Number	Emitting Material	Lens-color	Radiant Intensity CIE127-2007* (Po-mW/sr) @20mA		Wavelength CIE127-2007* nm $\lambda_P$	Viewing Angle 2 $\theta$ 1/2
			min.	typ.		
XZTHI53W	GaAlAs	Water Clear	0.8*	1.3*	880*	150 $^\circ$

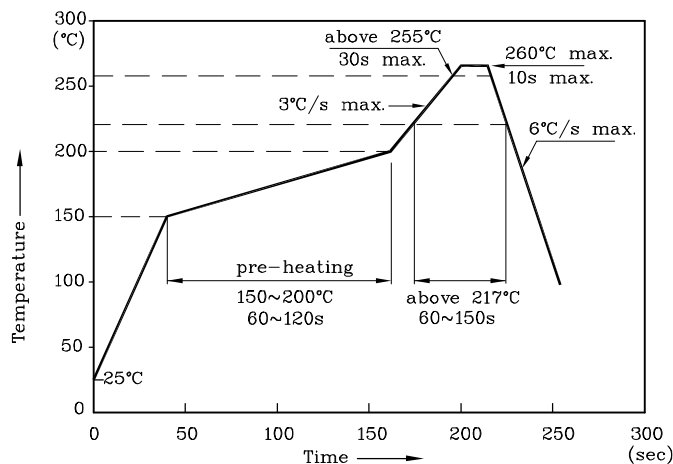
\*Radiant intensity value and wavelength are in accordance with CIE127-2007 standards.



# ❖ THI

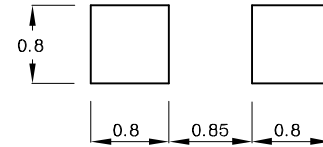
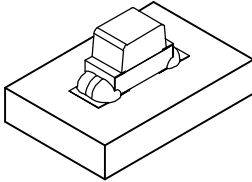


## Reflow Soldering Profile for SMD Products (Pb-Free Components)

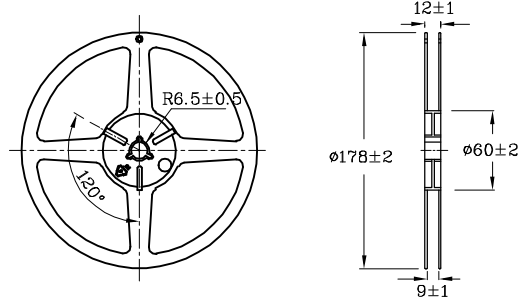


❖ The device has a single mounting surface.  
The device must be mounted according to the specifications.

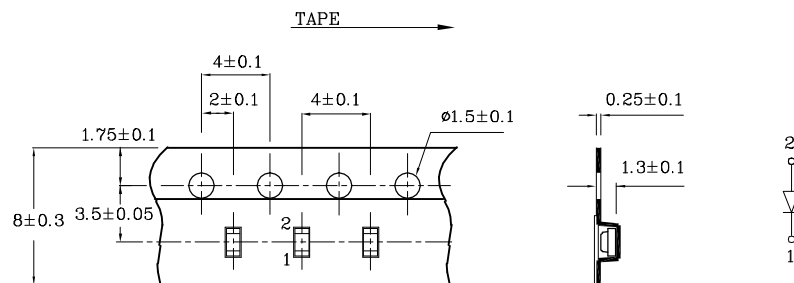
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance:  $\pm 0.1$ )



❖ Reel Dimension (Units : mm)



❖ Tape Specification (Units : mm)



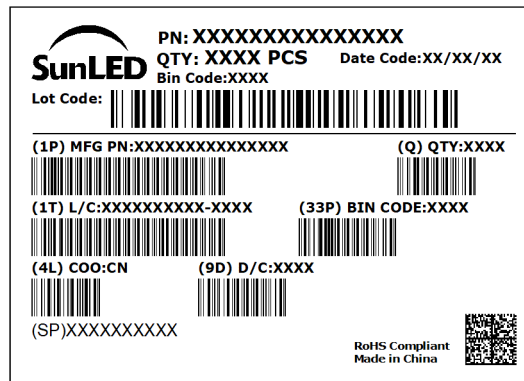
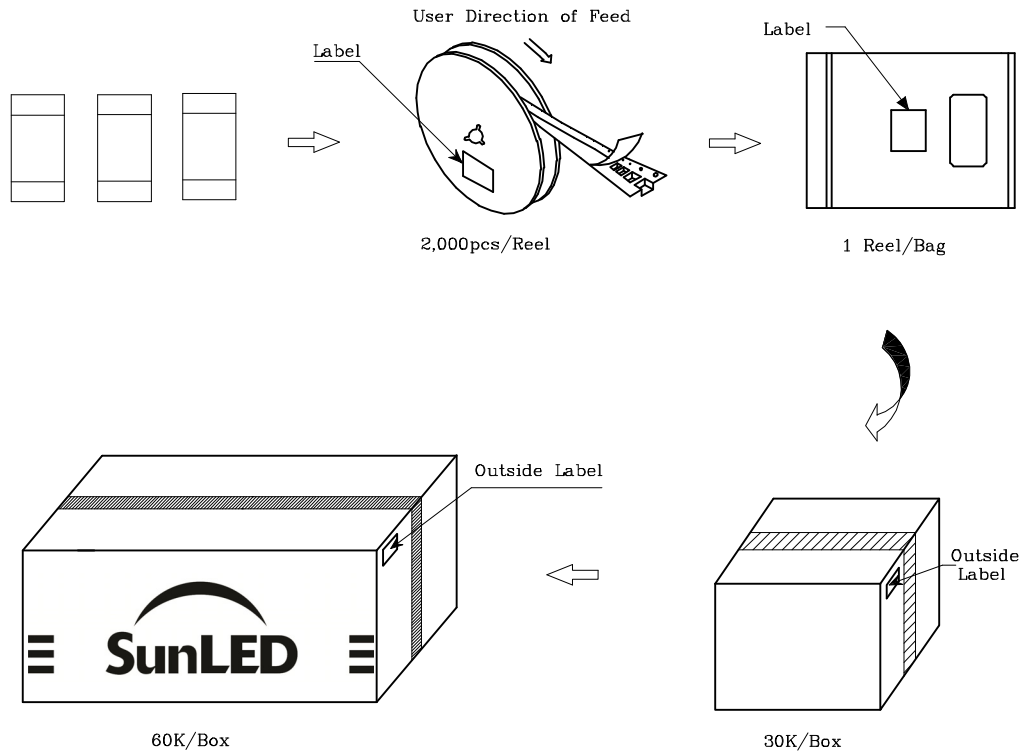
**Remarks:**

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:  $\pm 15\%$
2. Forward Voltage:  $\pm 0.1V$

Note: Accuracy may depend on the sorting parameters

## PACKING & LABEL SPECIFICATIONS



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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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