

Part Number: **ZTHI55W-3**

3.2x1.6mm INFRARED EMITTING DIODE

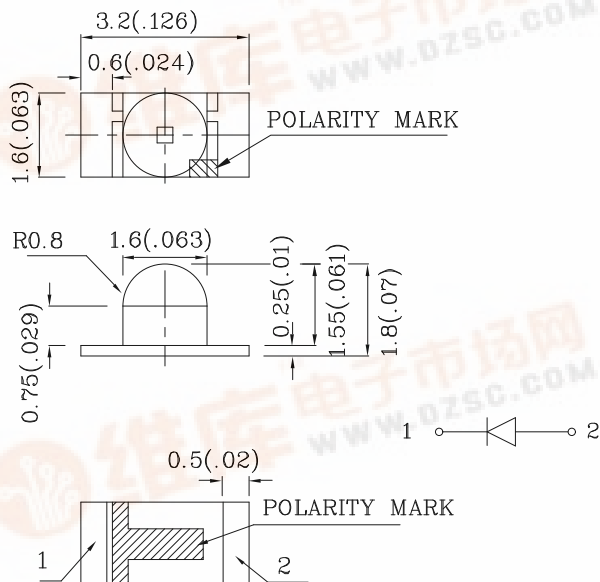
### Features

- 3.2mmx1.6mm SMT LED,1.8mm THICKNESS.
- MECHANICALLY AND SPECTRALLY MATCHED TO THE PHOTOTRANSISTOR.
- WATER CLEAR LENS
- PACKAGE: 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.



#### 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.

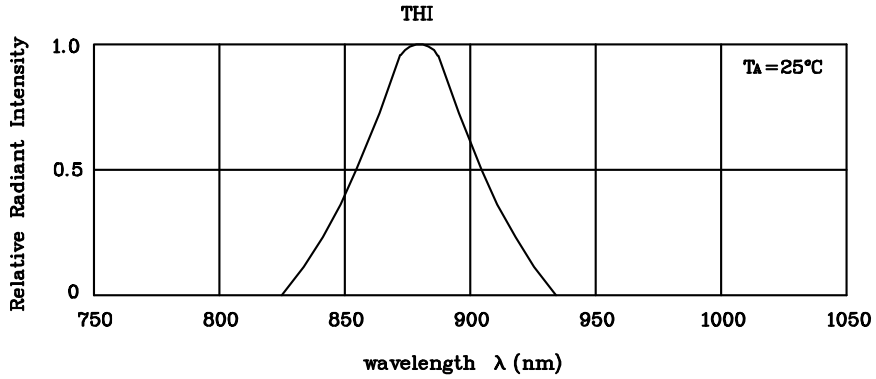


Absolute maximum ratings ( $T_A=25^\circ\text{C}$ )		THI (GaAlAs)	Unit
Reverse Voltage	$V_R$	5	V
Forward Current	$I_F$	50	mA
Forward Current (Peak) 1/100 Duty Cycle 10us Pulse Width	$i_{FS}$	1.2	A
Power Dissipation	$P_T$	80	mW
Operating Temperature	$T_A$	-40 ~ +85	°C
Storage Temperature	$T_{stg}$	-40 ~ +85	

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 (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

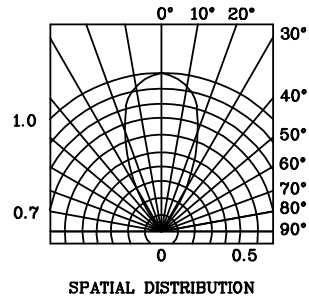
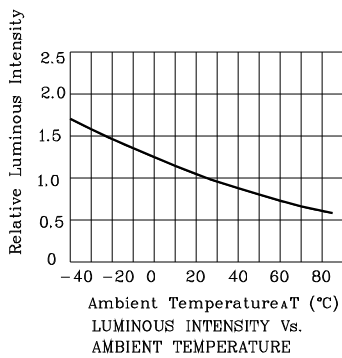
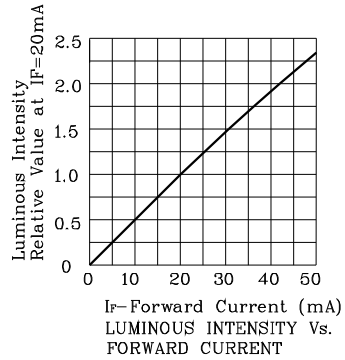
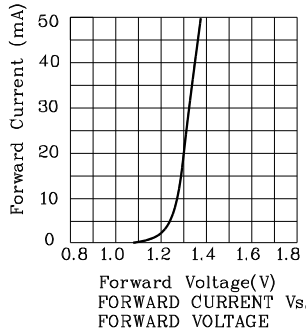
Part Number	Emitting Material	Lens-color	Luminous Intensity ( $P_o=\text{Mw/sr}$ ) @20mA		Wavelength nm $\lambda_P$	Viewing Angle $2\theta$ 1/2
			min.	typ.		
ZTHI55W-3	GaAlAs	Water Clear	1.6	3	880	50°



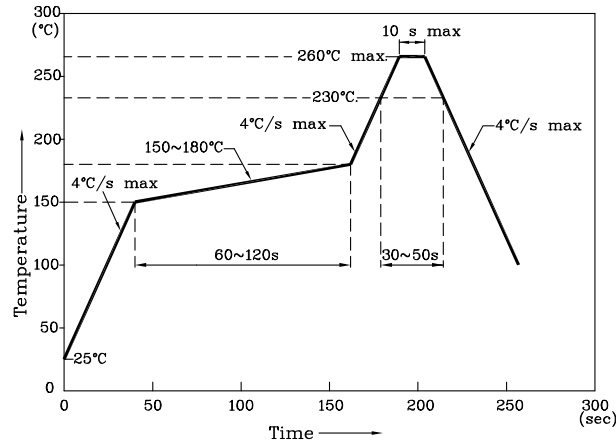


RELATIVE INTENSITY Vs. WAVELENGTH

❖ THI



Reflow Soldering Profile For Lead-free SMT Process.



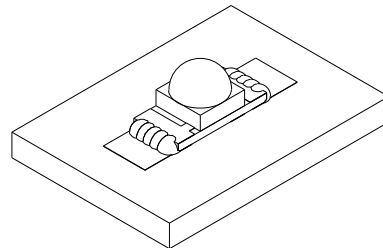
NOTES:

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.

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

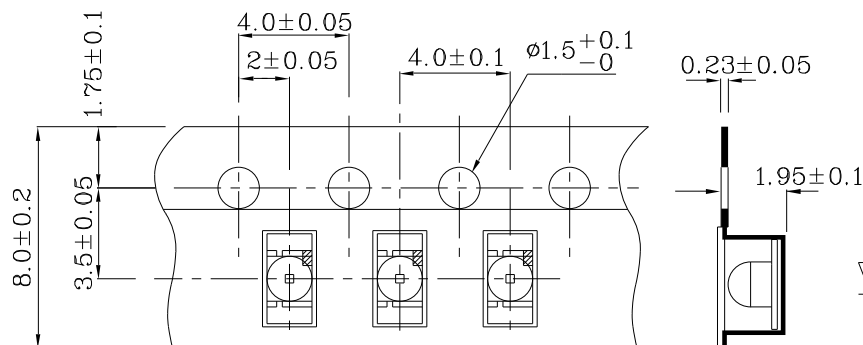


❖ The device has a single mounting surface. The device must be mounted according to the specifications.



❖ Tape Specification (Units : mm)

TAPE →



Remarks:

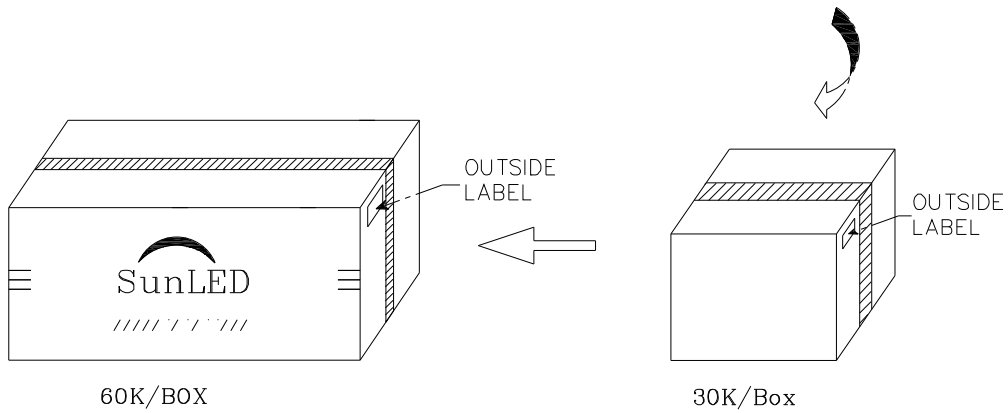
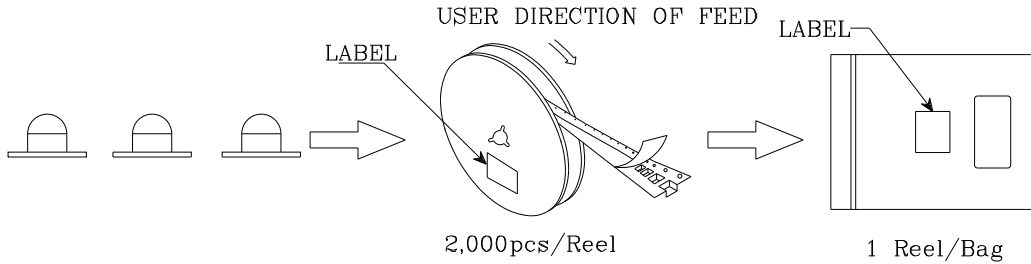
If special sorting is required (e.g. binning based on forward voltage or radiant intensity / luminous flux), the typical accuracy of the sorting process is as follows:


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

Note: Accuracy may depend on the sorting parameters

**PACKING & LABEL SPECIFICATIONS**

**ZTHI55W-3**



P/NO : Zxxx55x-3	
QTY : 2,000 pcs	CODE: XXX
S/N : XX	
LOT NO :	
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	