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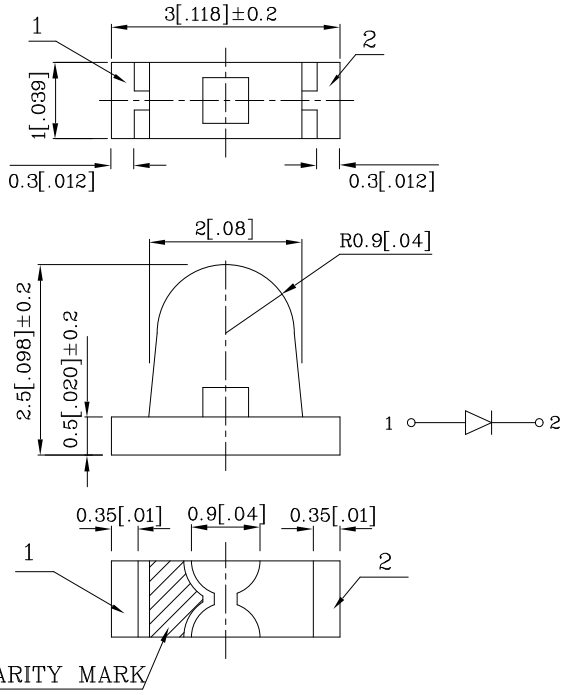
Part Number: ZTHI56W-1

3.0x1.0mm INFRARED EMITTING DIODE

PRELIMINARY SPEC

Features

- 3.0mm x 1.0mm RIGHT ANGLE SMT LED, 2.5mm THICKNESS.
- MECHANICALLY AND SPECTRALLY MATCHED TO THE PHOTOTRANSISTOR.
- WATER CLEAR LENS.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.



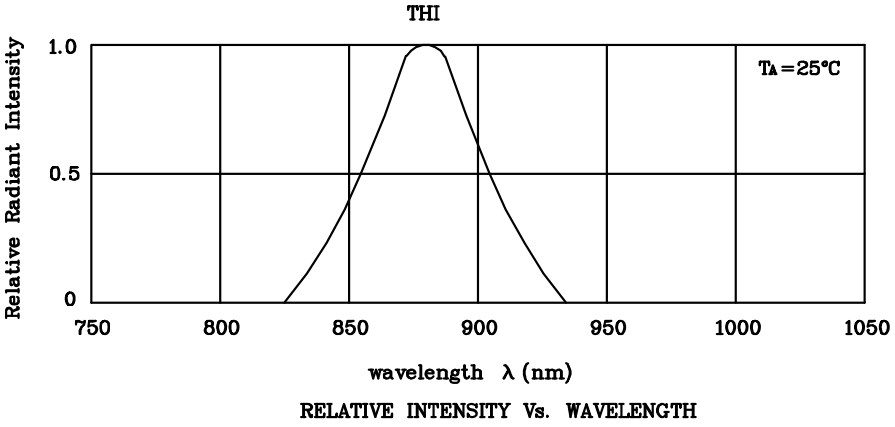
Notes:

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

Absolute maximum ratings (T_A=25°C)		**THI (GaAlAs)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	50	mA
Forward Current (Peak) 1/100Duty Cycle 10us Pulse Width	iFS	1.2	A
Power Dissipation	P_T	80	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	

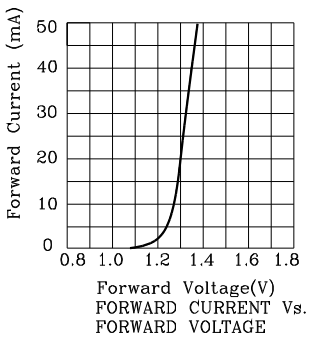
Operating Characteristics (T_A=25°C)		**THI (GaAlAs)**	**Unit**
Forward Voltage (Typ.) (I_F=20mA)	V_F	1.3	V
Forward Voltage (Max.) (I_F=20mA)	V_F	1.6	V
Reverse Current (Max.) (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission (Typ.) (I_F=20mA)	λ P	880	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=20mA)	Δλ	50	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	90	pF

Part Number	Emitting Material	Lens-color	Luminous Intensity (Po=Mw/sr) @20mA		Wavelength nm λ P	Viewing Angle 2 θ 1/2
			min.	typ.		
ZTHI56W-1	GaAlAs	Water Clear	1	2.3	880	30 °

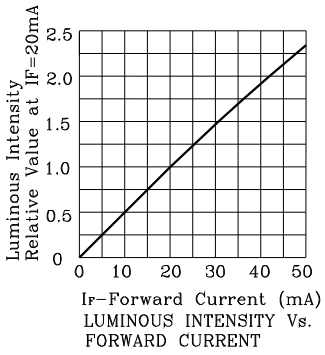


RELATIVE INTENSITY Vs. WAVELENGTH

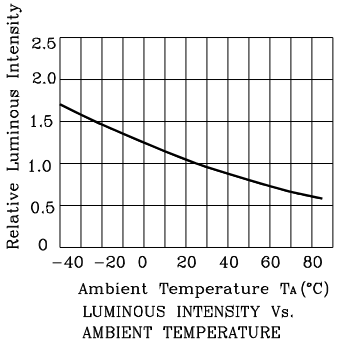
❖ **THI**



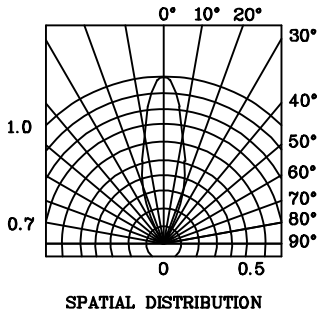
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

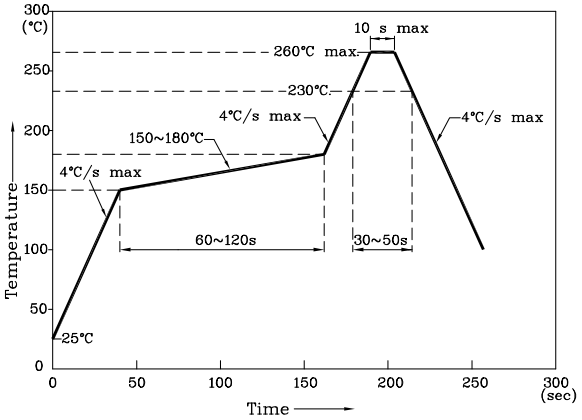


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

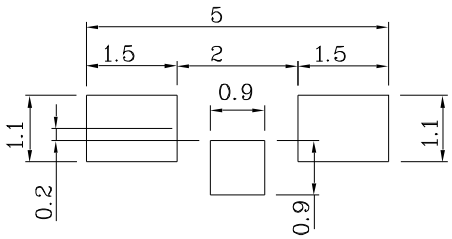
Reflow Soldering Profile For Lead-free SMT Process.



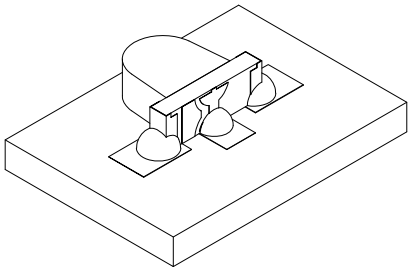
NOTES:

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.

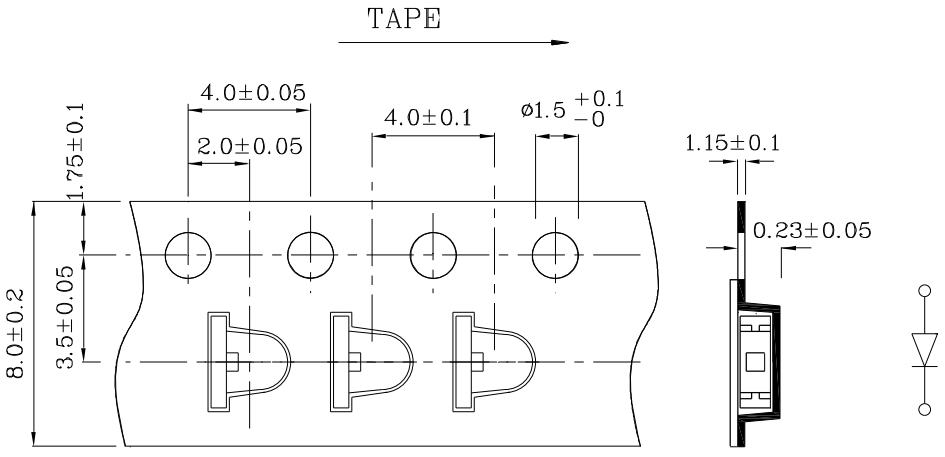
❖ **Recommended Soldering Pattern (Units : mm; Tolerance: ±0.1)**



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



❖ **Tape Specification (Units : mm)**



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 ZTHI56W-1

