SunLED
www.SunLEDusa.com

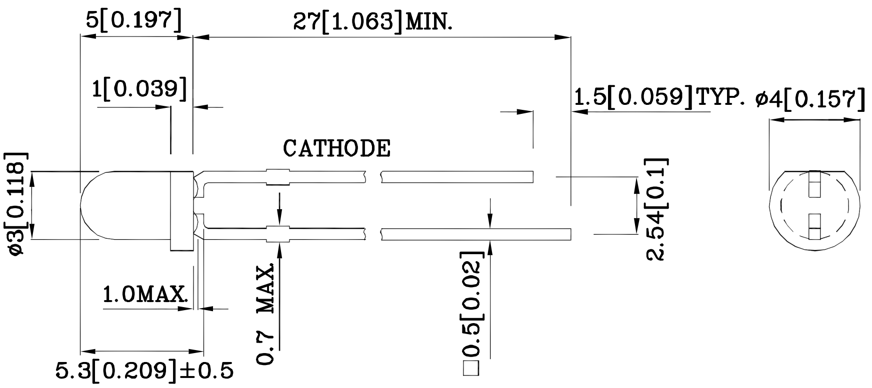
Part Number: XTHI30W

T-1 (3mm) INFRARED EMITTING DIODE

Features

- Radial / Through hole package
- Reliable & robust
- Low power consumption
- Available on tape and reel
- RoHS Compliant

Package Schematics



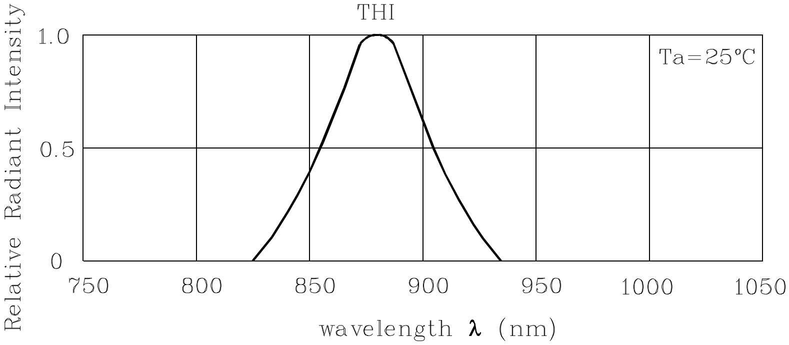
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

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) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	1200	mA
Power Dissipation	P_D	80	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds		
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds		

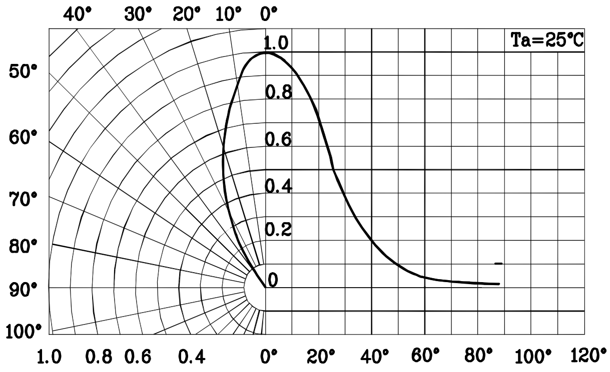
Operating Characteristics (T_A=25°C)		**THI (GaAlAs)**	**Unit**
Forward Voltage (Typ.) (I_F=20mA)	V_F	1.3	V
Forward Voltage (Max.) (I_F=20mA)	V_F	1.6	V
Reverse Current (Max.) (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission CIE127-2007*(Typ.) (I_F=20mA)	λP	880*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=20mA)	△λ	50	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	90	pF

Part Number	Emitting Material	Lens-color	Radiant Intensity CIE127-2007* (Po=mW/sr) @20mA		Radiant Intensity CIE127-2007* (Po=mW/sr) @50mA		Wavelength CIE127-2007* nm λP	Viewing Angle 2θ 1/2
			min.	typ.	min.	typ.		
XTHI30W	GaAlAs	Water Clear	3*	16*	5*	20*	880*	50°

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

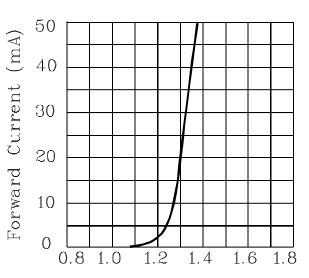


RELATIVE INTENSITY Vs. CIE WAVELENGTH

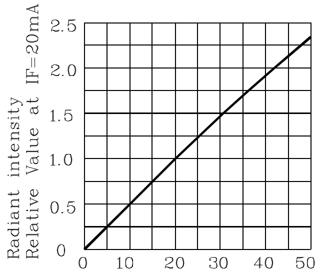


SPATIAL DISTRBUTION

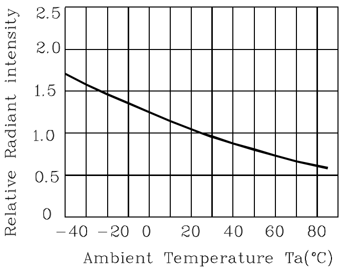
❖ THI



FORWARD CURRENT Vs.
FORWARD VOLTAGE

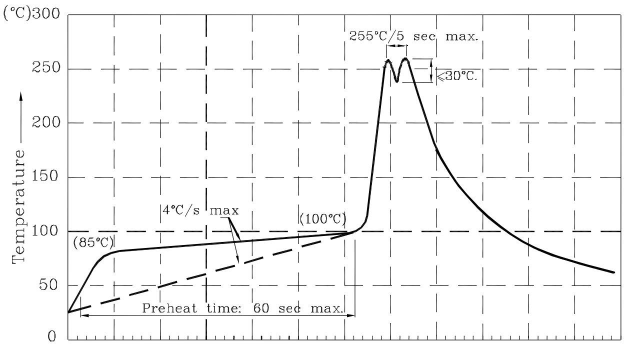


RADIANT INTENSITY Vs.
FORWARD CURRENT



RADIANT INTENSITY Vs.
AMBIENT TEMPERATURE

Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



Notes:
1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85°C.
4. Fixtures should not incur stress on the component when mounting and during soldering process.
5. SAC 305 solder alloy is recommended.
6. No more than one wave soldering pass.

Remarks:

If special sorting is required (e.g. binning based on forward voltage or radiant intensity / luminous flux),

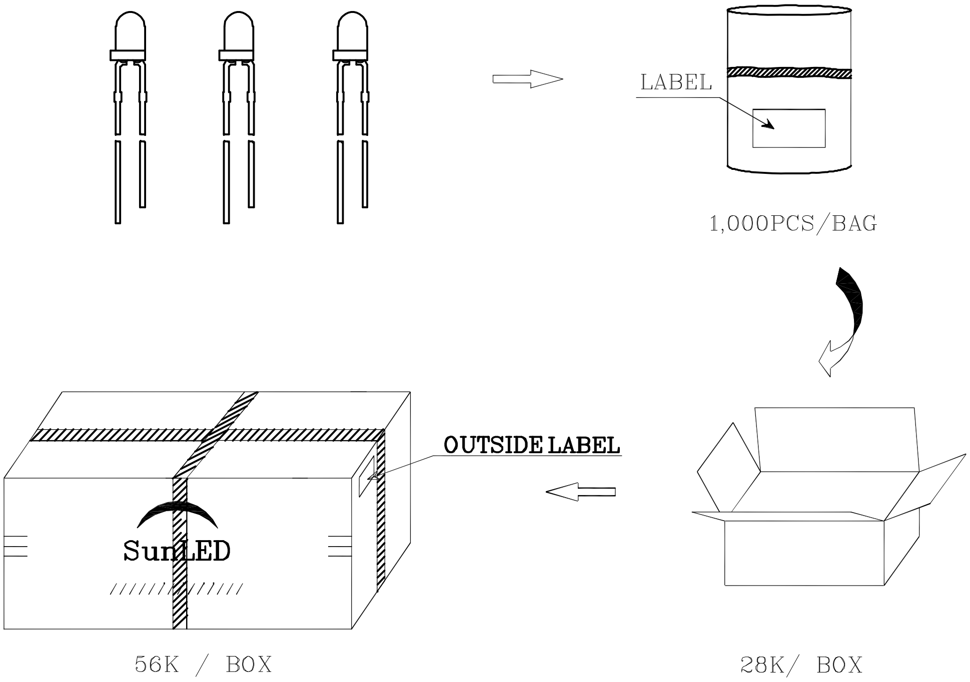
the typical accuracy of the sorting process is as follows:

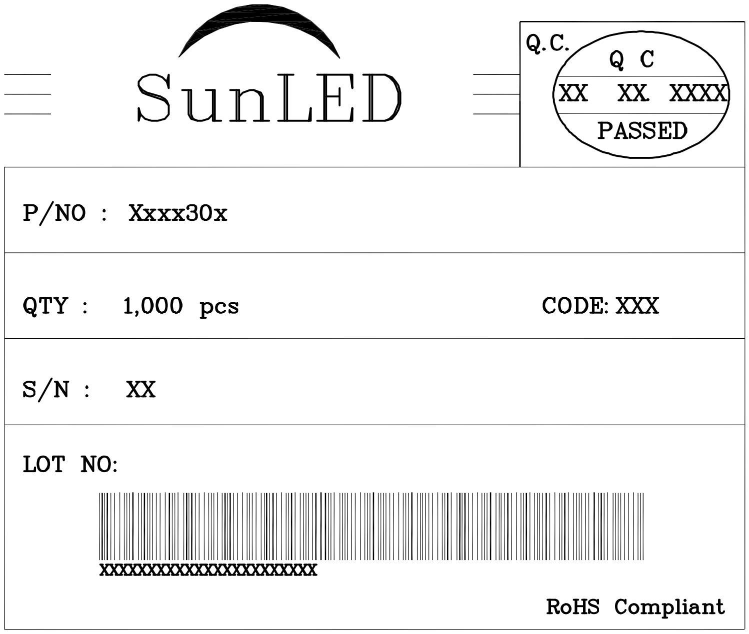
1. Radiant Intensity / Luminous Flux: +/-15%

2. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters

PACKING & LABEL SPECIFICATIONS





SunLED

Q.C.
Q C
XX XX XXXX
PASSED

P/NO : Xxxx30x

QTY : 1,000 pcs CODE: XXX

S/N : XX

LOT NO:
XXXXXXXXXXXXXXXXXXXXXXX

RoHS Compliant