

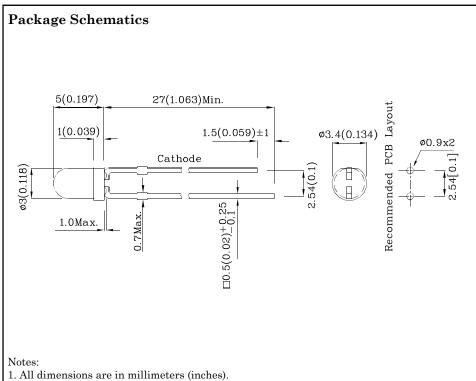
# Part Number: XTHI30BF

## T-1 (3mm) INFRARED EMITTING DIODE

### Features

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





- 2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		THI (GaAlAs)	Unit		
Reverse Voltage	$V_{\mathrm{R}}$	5	V		
Forward Current	$\mathbf{I}_{\mathbf{F}}$	50	mA		
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	1200	mA		
Power Dissipation	$\mathbf{P}_{\mathrm{D}}$	80	mW		
Operating Temperature	$T_{\rm A}$	$-40 \sim +85$	°C		
Storage Temperature	Tstg	$-40 \sim +85$			
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds				
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds				

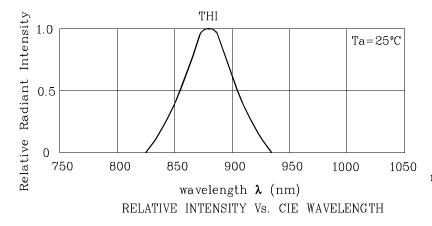
A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

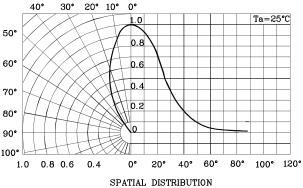
Operating Characteristics (T <sub>A</sub> =25°C)	THI (GaAlAs)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\rm F}$	1.3	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	1.6	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_{R}$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λP	880*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$ riangle\lambda$	50	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	90	$\mathrm{pF}$

Part Number	Emitting Material	Lens-color	Radiant Intensity CIE127-2007* (Po=mW/sr) @20mA		CIE127-2007* CIE127-2007* (Po=mW/sr) (Po=mW/sr)		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
			min.	typ.	min.	typ.		
XTHI30BF	GaAlAs	Blue Transparent	3*	15*	5*	19*	880*	50°

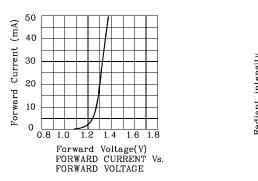
\*Radiant intensity value and wavelength are in accordance with CIE127-2007 standards.

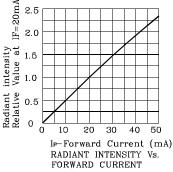


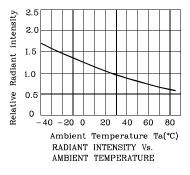




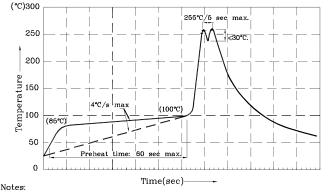
✤ THI







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



I.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  $85^{\circ}$ 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, luminous intensity / luminous flux),

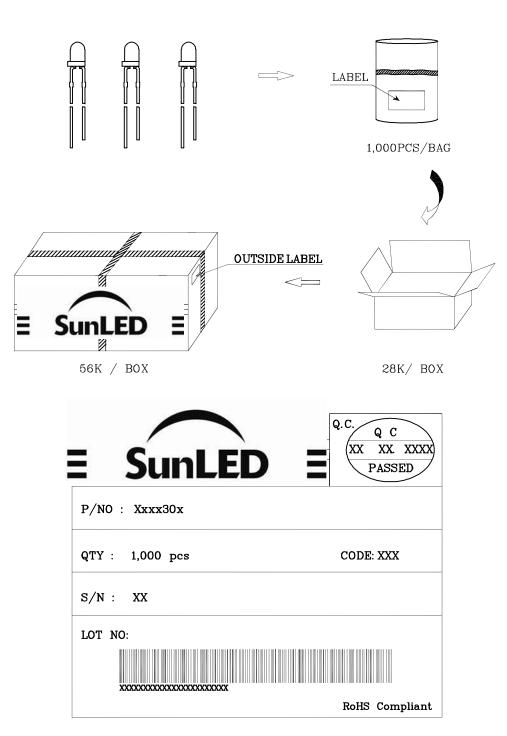
the typical accuracy of the sorting process is as follows:

- 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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- 2. Contents within this document are subject to improvement and enhancement changes without notice.
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