



T-1 3/4 (5mm) INFRARED EMITTING DIODE

Features

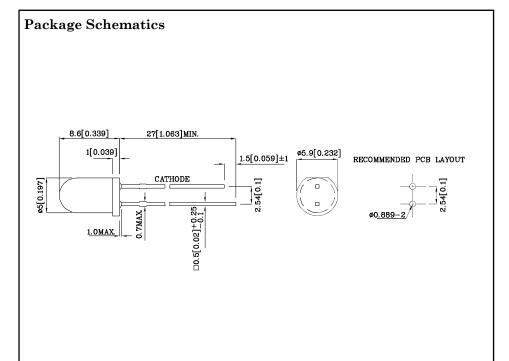
• Radial / Through hole package

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- \bullet Reliable & robust
- Low power consumption
- Available on tape and reel
- RoHS Compliant







Notes:

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

Absolute Maximum Ratings (T _A =25°C)		THI/860 (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	1000	mA		
Power Dissipation	P_{D}	80	mW		
Operating Temperature	T_{A}	-40 ~ +85	200		
Storage Temperature	Tstg	-40 ~ +85	°C		
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/860 (GaAlAs)	Unit	
Forward Voltage (Typ.) (I _F =20mA)	V_{F}	1.35	V
Forward Voltage (Max.) (I _F =20mA)	V_{F}	1.6	V
Reverse Current (Max.) $(V_R=5V)$	${ m I}_{ m R}$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I _F =20mA)	λΡ	860*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	$\triangle \lambda$	50	nm
Capacitance (Typ.) (V _F =0V, f=1MHz)	С	30	pF

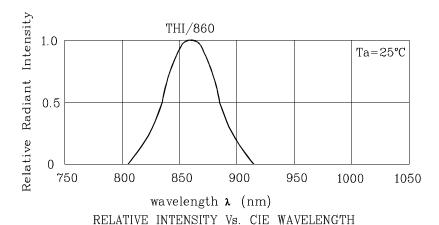
Part Number	Emitting Material	Lens-color	Radiant Intensity CIE127-2007* (Po=mW/sr) @20mA		Radiant Intensity CIE127-2007* (Po=mW/sr) @50mA		$\begin{array}{c} Wavelength \\ CIE127\text{-}2007* \\ nm \\ \lambda P \end{array}$	Viewing Angle 20 1/2
			min.	typ.	min.	typ.		
XTHI12W860	GaAlAs	Water Clear	18*	39*	55*	98*	860*	20°

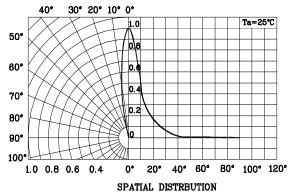
^{*}Radiant intensity value and wavelength are in accordance with CIE127-2007 standards.

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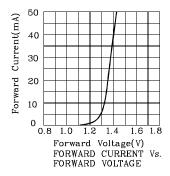


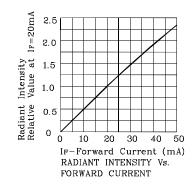


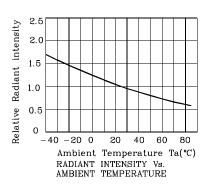




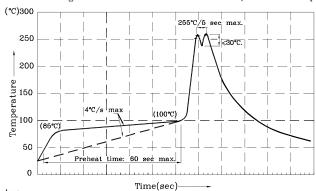
❖ THI/860







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



Notes: Notes. 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 $260^{\circ}C$ 2. Peak wave soldering temperature between $245^{\circ}C \sim 255^{\circ}C$ for 3 sec

(5 sec max).

 $3.\mathrm{Do}$ not apply stress to the epoxy resin while the temperature is above $85^{\circ}\mathrm{C}$. $4.\mathrm{Fixtures}$ 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

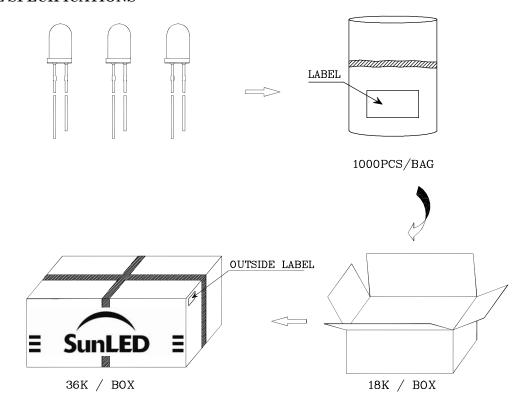
Note: Accuracy may depend on the sorting parameters.

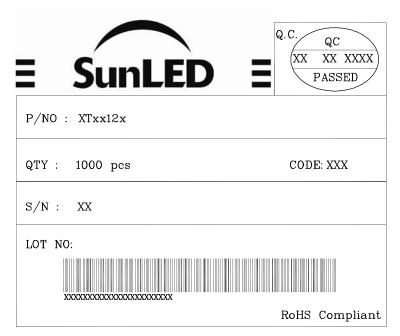


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PACKING & LABEL SPECIFICATIONS

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