

T-1 (3mm) Solid State Lamp

Features

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







Nov 23,2020

ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

Package Schematics $4.6(0.181)\pm0.3$ 27(1.063)Min. 1(0.039) $1.5(0.059)\pm1$ ø3.2(0.126) Cathode ø2.9(0.114) ø2.8(0.11) □ 0.5(0.02) 0.7Max. 1.0Max. $5.4(0.213)\pm0.5$ Recommended PCB Layout 2.54(0.1) Ø0.9x2

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)		Orange (AlGaInP)	Unit		
Reverse Voltage	$V_{\rm R}$	5	V		
Forward Current	I_{F}	30	mA		
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	195	mA		
Power Dissipation	PD	75	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				

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 _A =25°C)	Orange (AlGaInP)	Unit	
Forward Voltage (Typ.) (I _F =20mA)	V_{F}	2.1	V
Forward Voltage (Max.) (I _F =20mA)	V_{F}	2.5	V
Reverse Current (Max.) (V _R =5V)	I_R	10	μA
Wavelength of Peak Emission CIE127-2007*(Typ.) (I _F =20mA)	λP	610*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) (I _F =20mA)	λD	605*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	Δλ	29	nm
Capacitance (Typ.) (V _F =0V, f=1MHz)	С	15	pF

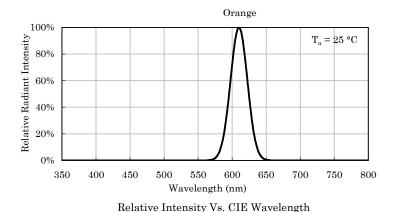
Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} \text{Luminous Intensity} \\ \text{CIE127-2007*} \\ \text{(I}_{\text{F}}\text{=}20\text{mA}) \\ \text{mcd} \end{array}$		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XLMOK11W	Orange	AlGaInP	Water Clear	1300 700*	2290 1395*	610*	30°

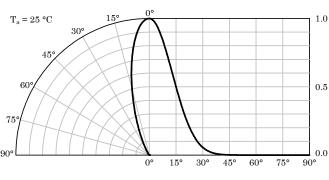
^{*}Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.



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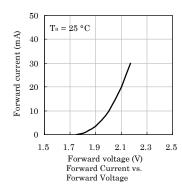


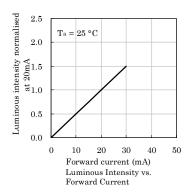


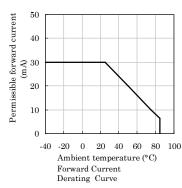


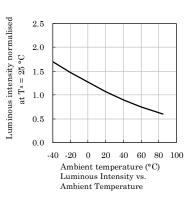
Spatial Distribution

♦ Orange

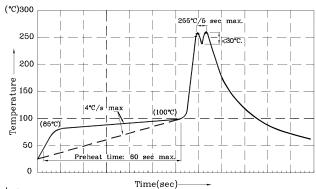








Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



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 $85\,^\circ\text{C}.$ 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, or wavelength),

the typical accuracy of the sorting process is as follows:

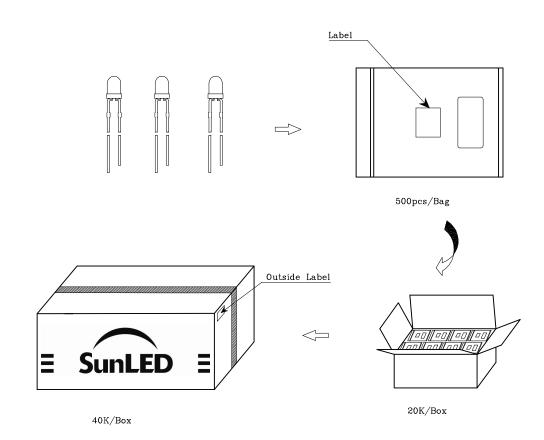
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

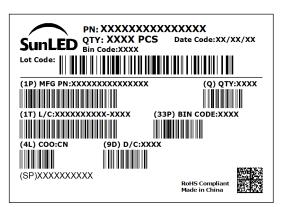
Note: Accuracy may depend on the sorting parameters.





PACKING & LABEL SPECIFICATIONS





TERMS OF USE

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- 2. Contents within this document are subject to improvement and enhancement changes without notice.
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- $6. \ Additional\ technical\ notes\ are\ available\ at\ \underline{https://www.SunLEDusa.com/TechnicalNotes.asp}$

Nov 23,2020 XDSB5997 V4-X Layout: Maggie L.