

T-1(3mm) BI-COLOR INDICATOR LAMP

## **Features**

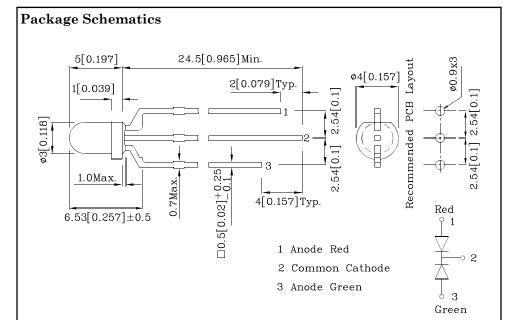
- Radial / Through hole package
- Reliable & robust
- Low power consumption
- Available on tape and reel
- RoHS compliant







ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



### 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 <sub>A</sub> =25°C)		Red (AlGaInP)	Green (AlGaInP)	Unit	
Reverse Voltage	$V_{\rm R}$	5	5	V	
Forward Current	$I_{\mathrm{F}}$	30	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	185	150	mA	
Power Dissipation	$P_D$	75	75	mW	
Operating Temperature	$T_{A}$	-40 ~ +85		°C	
Storage Temperature	Tstg	-40 ~			
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)	Red (AlGaIn P)	Green (AlGaIn P)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	1.95	2.1	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.5	2.5	V
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λΡ	645*	574*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	630*	570*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	28	20	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	35	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I <sub>F</sub> =20mA) mcd		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
Red XLMDKVG34M Green	Red	AlGaInP	White Diffused -	400 80*	695 158*	645*	60°
	Green	AlGaInP		60 60*	158 158*	574*	

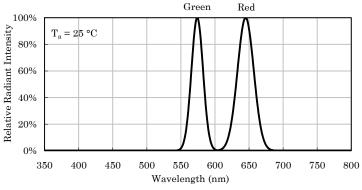
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards. Nov 05.2018

XDSA0615 V14-X Layout: Maggie

## Part Number: XLMDKVG34M

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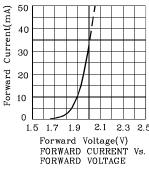


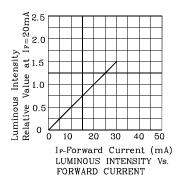
Relative Intensity Vs. CIE Wavelength

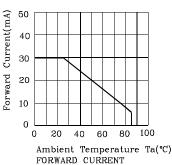
## 1.0 15 $T_a = 25 \, ^{\circ}C$ 309 45 60 0.5 909 0.0 15° 30° 45° 60° 759 90°

Spatial Distribution

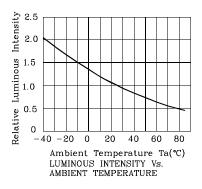
## Red



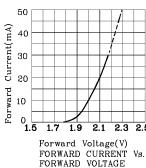


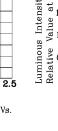


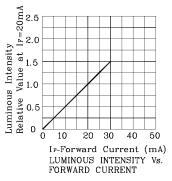
DERATING CURVE

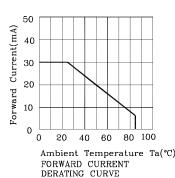


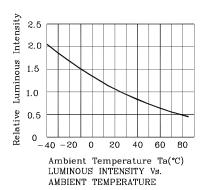
## Green



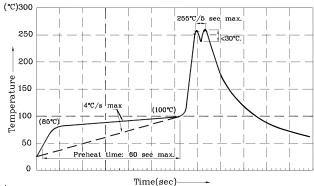








Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



- 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, luminous intensity / luminous flux, or wavelength),

the typical accuracy of the sorting process is as follows:

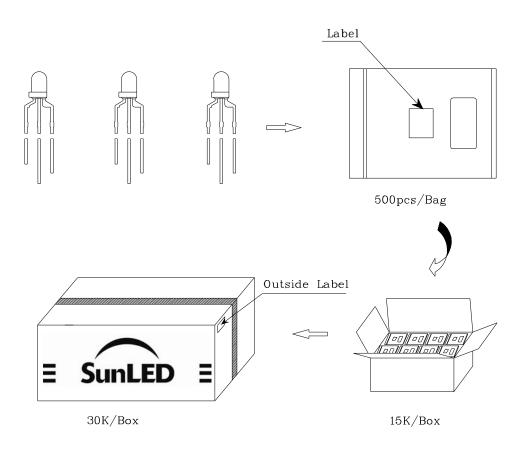
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

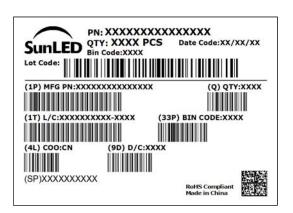
Note: Accuracy may depend on the sorting parameters.



PACKING & LABEL SPECIFICATIONS

# www.SunLEDusa.com T-1(3mm) BI-COLOR IN





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Nov 05,2018