

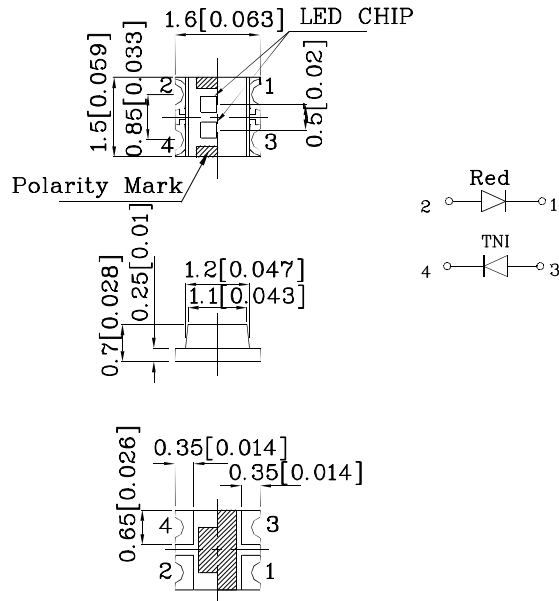
### Features

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- RoHS compliant



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

### Package Schematics



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2(0.008)$  unless otherwise noted.
3. Specifications are subject to change without notice.

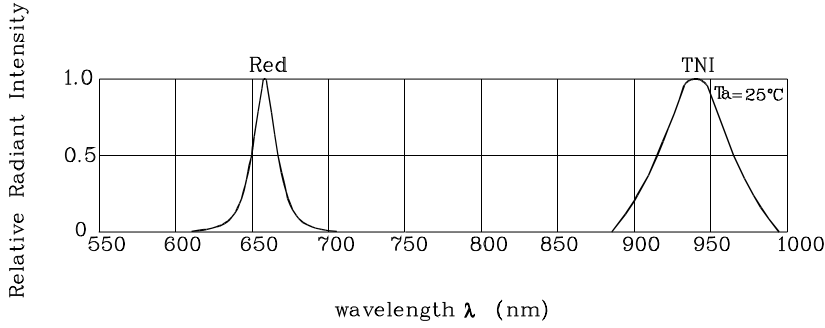
Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ )		Red (AlGaInP)	TNI (GaAs)	Unit
Reverse Voltage	$V_R$	5	5	V
Forward Current	$I_F$	30	50	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{FS}$	150	1200	mA
Power Dissipation	$P_D$	75	80	mW
Operating Temperature	$T_A$	-40 ~ +85		°C
Storage Temperature	$T_{stg}$	-40 ~ +85		

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)

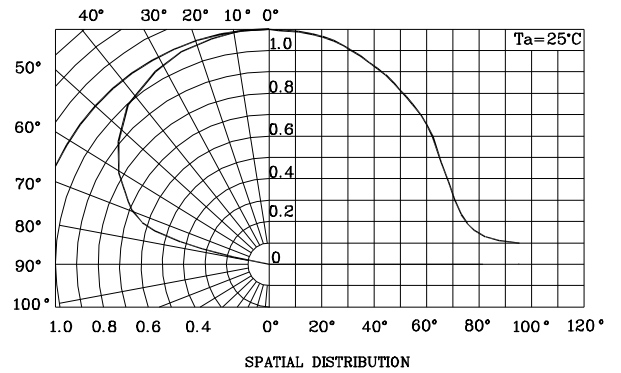
Operating Characteristics ( $T_A=25^\circ\text{C}$ )		Red (AlGaInP)	TNI (GaAs)	Unit
Forward Voltage (Typ.) ( $I_F=20\text{mA}$ )	$V_F$	2.1	1.2	V
Forward Voltage (Max.) ( $I_F=20\text{mA}$ )	$V_F$	2.5	1.6	V
Reverse Current (Max.) ( $V_R=5\text{V}$ )	$I_R$	10	10	$\mu\text{A}$
Wavelength of Peak Emission CIE127-2007* (Typ.) ( $I_F=20\text{mA}$ )	$\lambda_P$	660*	940*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) ( $I_F=20\text{mA}$ )	$\lambda_D$	640*	-	nm
Spectral Line Full Width At Half-Maximum (Typ.) ( $I_F=20\text{mA}$ )	$\Delta\lambda$	20	50	nm
Capacitance (Typ.) ( $V_F=0\text{V}$ , $f=1\text{MHz}$ )	C	45	90	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* ( $P_o = \text{mW/sr}$ ) @20mA		Wavelength CIE127-2007* nm $\lambda_P$	Viewing Angle 2 $\theta$ 1/2		
				min.	typ.				
XZM2MRTNI59W-1	Red	AlGaInP	Water Clear	-	-	400 120*	597 198*	660*	150°
		GaAs		1.6 1.6*	2.8 2.8*	-	-		

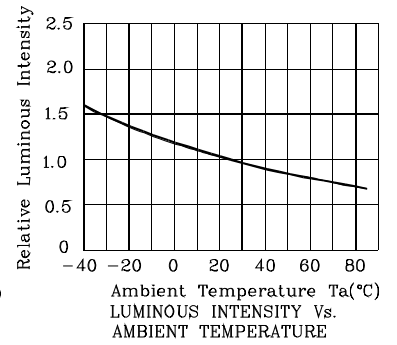
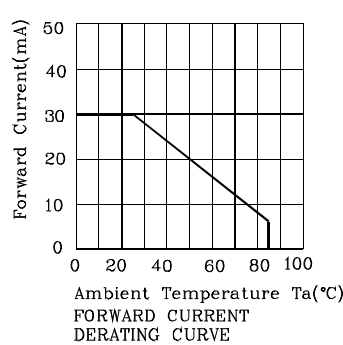
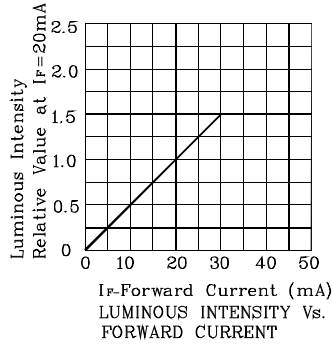
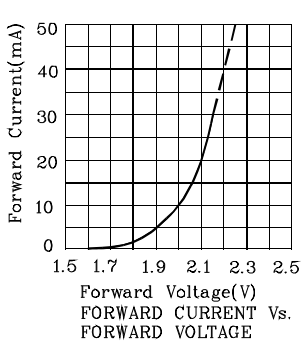
\*Luminous/Radiant intensity value and wavelength are in accordance with CIE127-2007 standards.



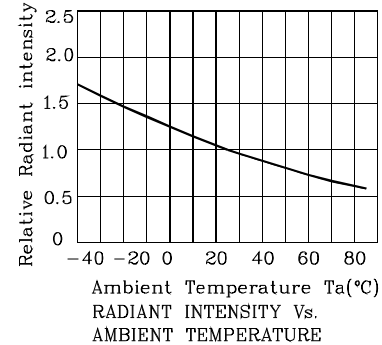
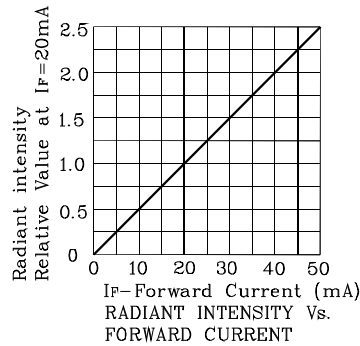
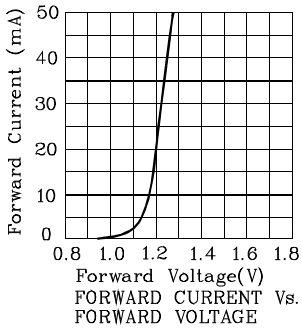
RELATIVE INTENSITY Vs. CIE WAVELENGTH



❖ Red

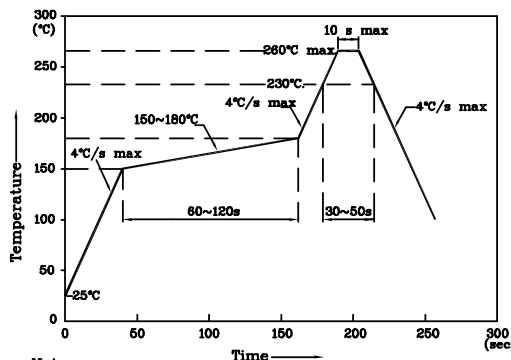


❖ TNI



LED is recommended for reflow soldering and soldering profile is shown below.

Reflow Soldering Profile for SMD Products (Pb-Free Components)

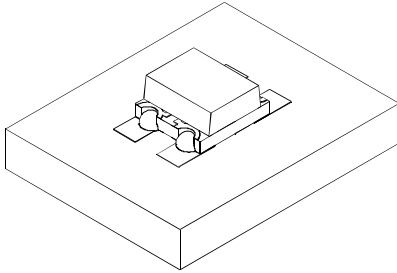


Notes:

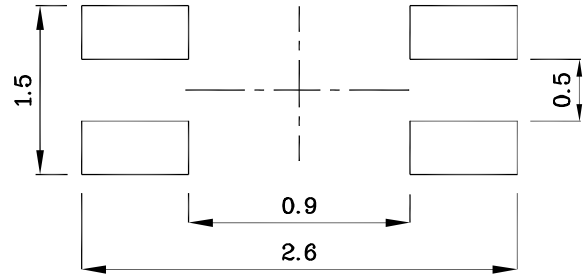
1. Maximum soldering temperature should not exceed 260°C
2. Recommended reflow temperature: 145°C-280°C
3. Do not put stress to the epoxy resin during high temperatures conditions



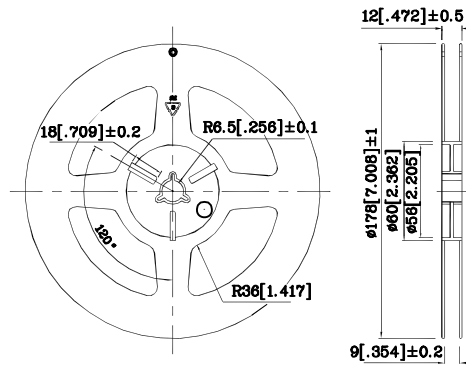
❖ The device has a single mounting surface.  
The device must be mounted according to the specifications.



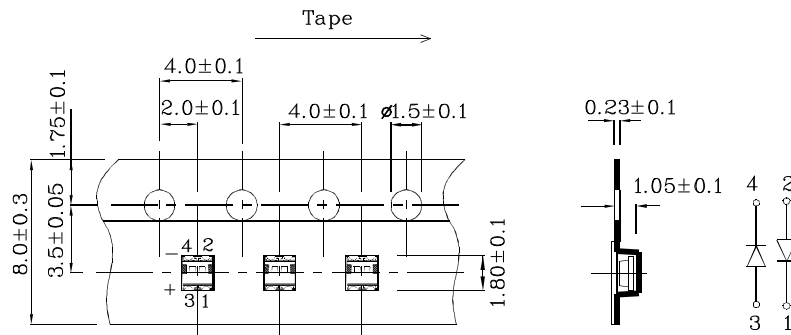
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance: ± 0.1)



❖ Reel Dimension



❖ Tape Specification (Units : mm)



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.

