

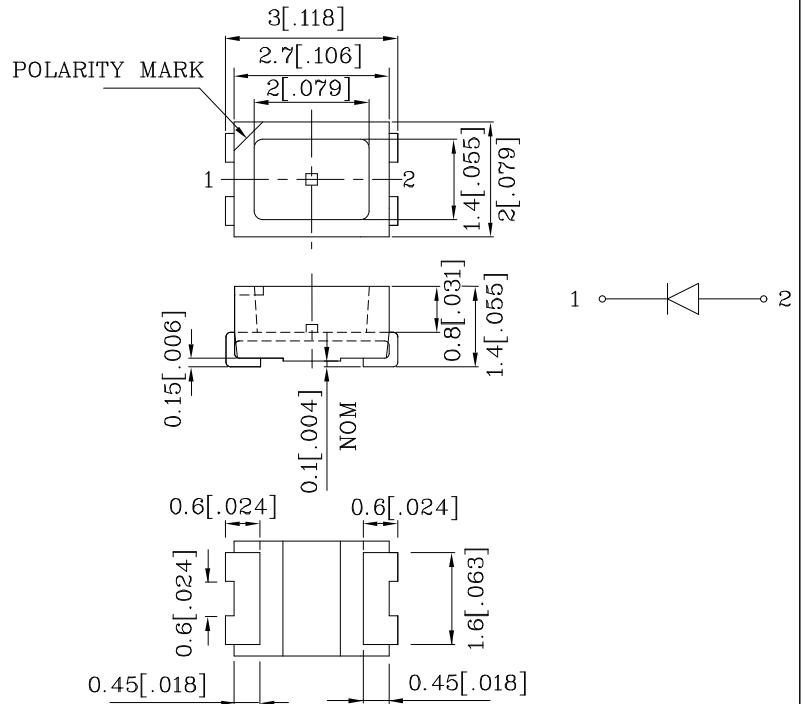
Features

- 3.0MM X 2.0MM, 1.4MM HIGH, ONLY MINIMUM SPACE REQUIRED.
- SUITABLE FOR COMPACT OPTOELECTRONIC APPLICATIONS.
- LOW POWER CONSUMPTION.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.



Notes:

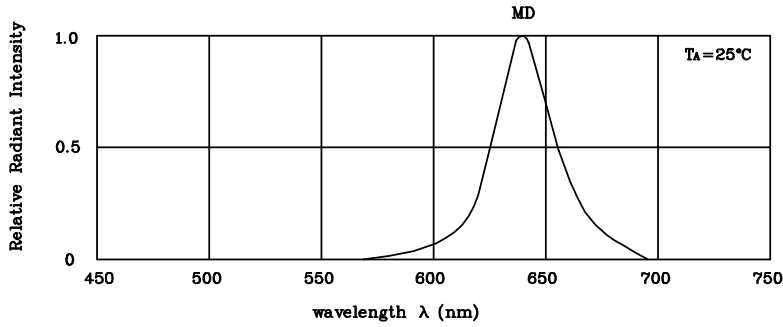
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.



Absolute Maximum Ratings (TA=25°C)		MD (InGaAlP)	Unit
Reverse Voltage	V _R	5	V
Forward Current	I _F	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i _{FS}	185	mA
Power Dissipation	P _T	75	mW
Operating Temperature	T _A	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +85	

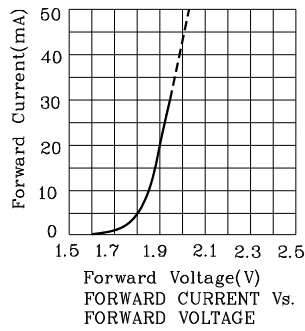
Operating Characteristics (TA=25°C)		MD (InGaAlP)	Unit
Forward Voltage (Typ.) (I _F =20mA)	V _F	1.9	V
Forward Voltage (Max.) (I _F =20mA)	V _F	2.5	V
Reverse Current (Max.) (V _R =5V)	I _R	10	uA
Wavelength of Peak Emission (Typ.) (I _F =20mA)	λ _P	640	nm
Wavelength of Dominant Emission (Typ.) (I _F =20mA)	λ _D	628	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	Δλ	27	nm
Capacitance (Typ.) (V _F =0V, f=1MHz)	C	45	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I _F =20mA)		Wavelength nm λ _P	Viewing Angle 2 θ 1/2
				min.	typ.		
ZMD50FW	Red	InGaAlP	Water Clear	110	228	640	90 °

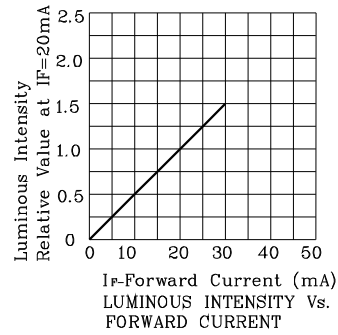


RELATIVE INTENSITY Vs. WAVELENGTH

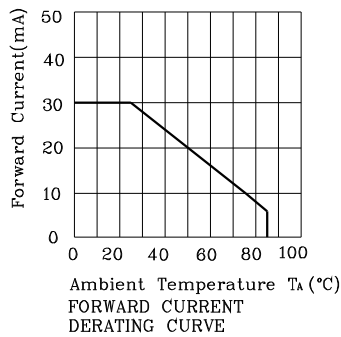
❖ MD



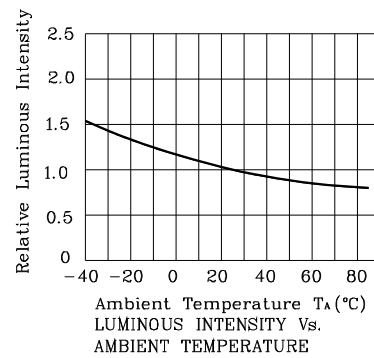
FORWARD CURRENT Vs. FORWARD VOLTAGE



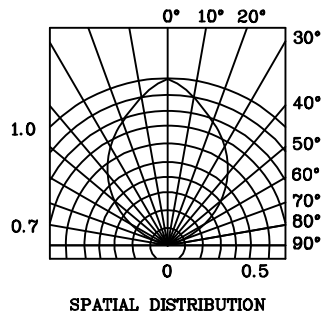
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

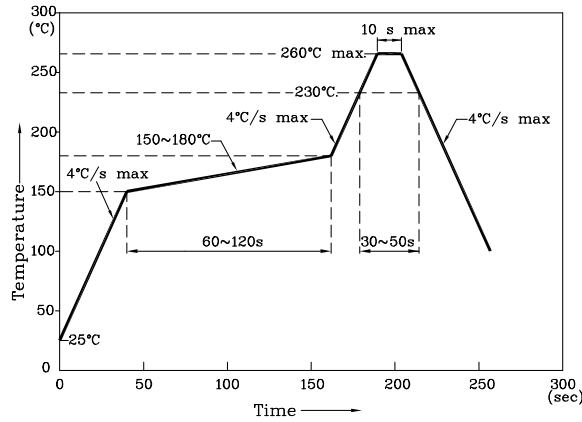


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

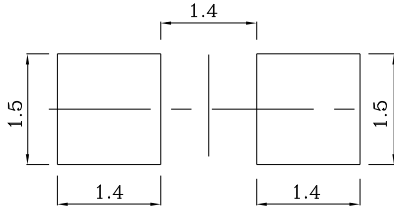
Reflow Soldering Profile For Lead-free SMT Process.



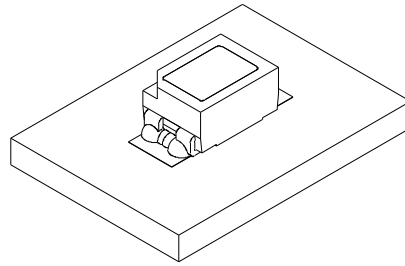
NOTES:

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

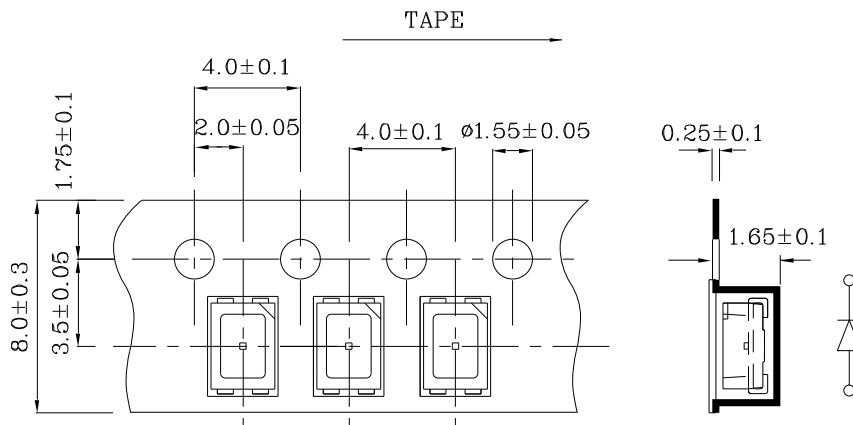
❖ Recommended Soldering Pattern
(Units : mm; Tolerance:± 0.1)



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



❖ Tape Specification (Units : mm)



Remarks:

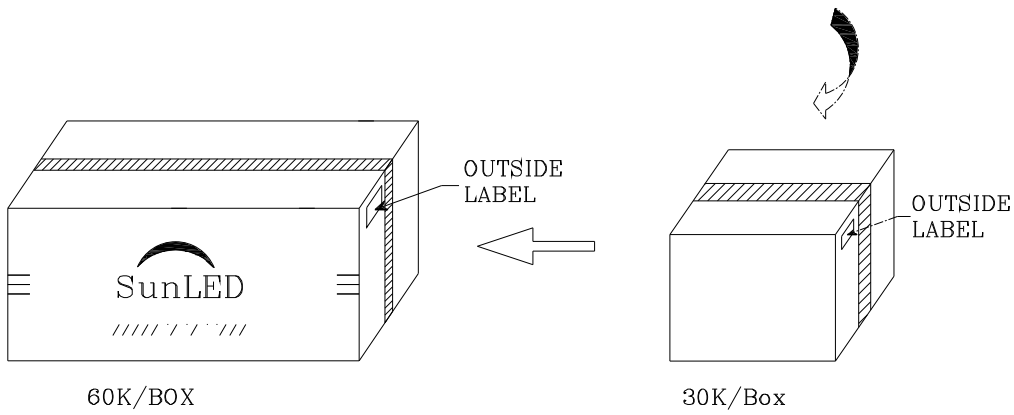
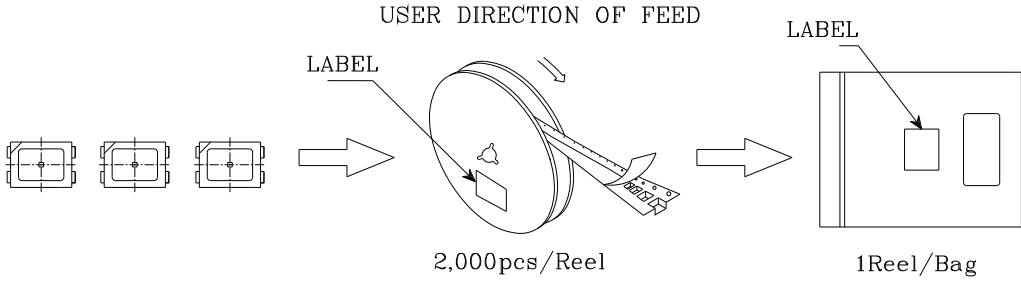
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:


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

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS

ZMD50FW



P/NO : Zxx50Fx	
QTY : 2,000 pcs	CODE: XXX
S/N : XX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	