

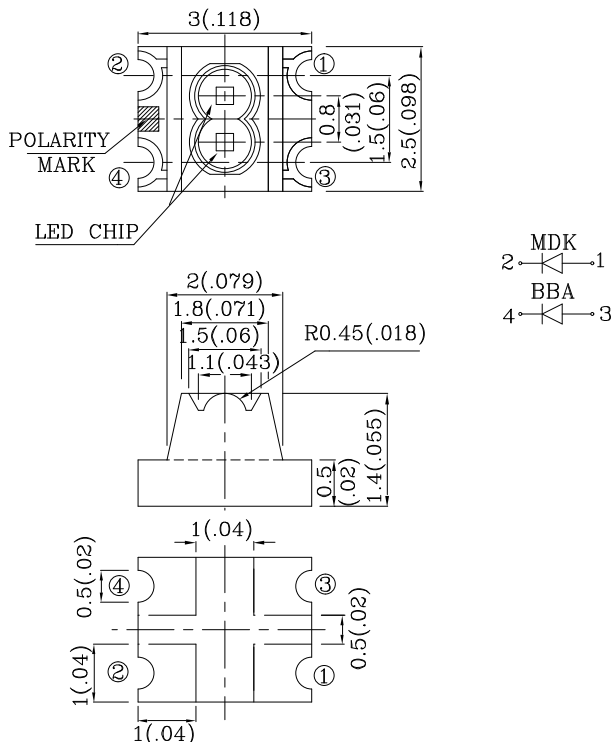
PRELIMINARY SPEC

**Features**

- 3.0mmx2.5mm SMT LED, 1.4mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACK LIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- INNER LENS TYPE
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- PACKAGE : 2000PCS / REEL.
- RoHS COMPLIANT.



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



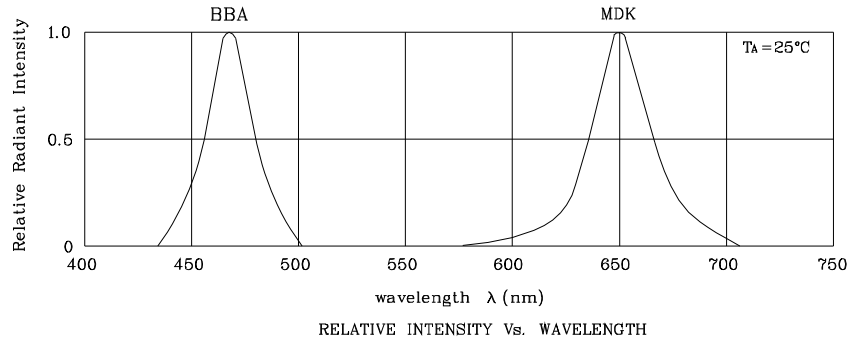
Notes:

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

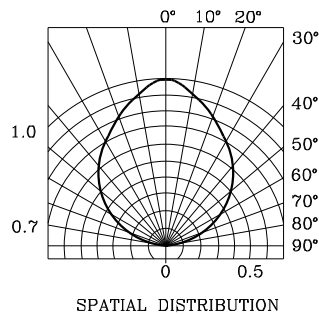
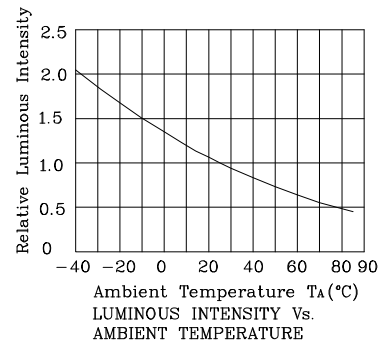
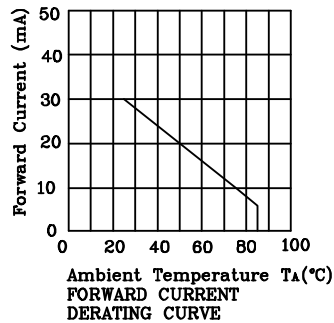
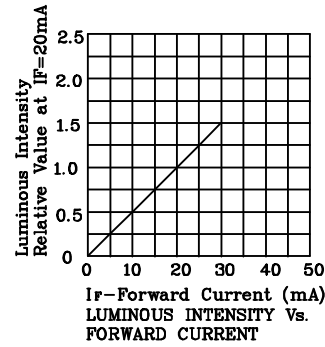
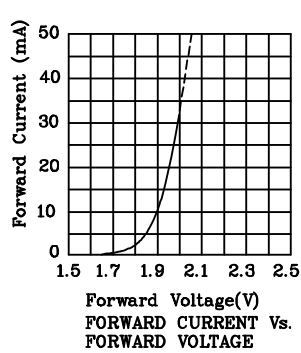
Absolute Maximum Ratings (TA=25°C)		MDK (InGaAlP)	BBA (InGaN)	Unit
Reverse Voltage	V <sub>R</sub>	5	5	V
Forward Current	I <sub>F</sub>	30	30	mA
Forward Current (Peak) 1/10Duty Cycle 0.1ms Pulse Width	i <sub>FS</sub>	185	100	mA
Power Dissipation	P <sub>T</sub>	75	120	mW
Electrostatic Discharge Threshold (HBM)		-	1000	V
Operating Temperature	T <sub>A</sub>	-40 ~ +85		°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85		

Operating Characteristics (TA=25°C)		MDK (InGaAlP)	BBA (InGaN)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	1.95	3.2	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	2.5	4.0	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	I <sub>R</sub>	10	10	µA
Wavelength Of Peak Emission (Typ.) (I <sub>F</sub> =20mA)	λ <sub>P</sub>	650	468	nm
Wavelength Of Dominant Emission (Typ.) (I <sub>F</sub> =20mA)	λ <sub>D</sub>	635	470	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	28	21	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	C	35	100	pF

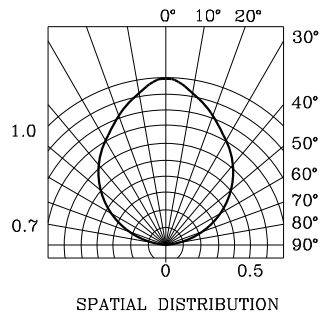
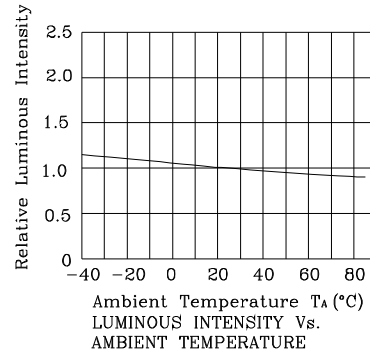
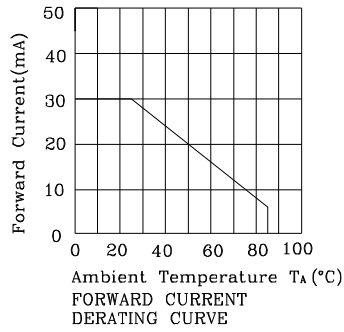
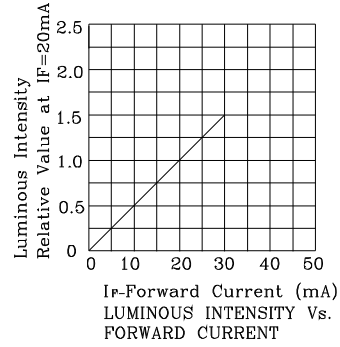
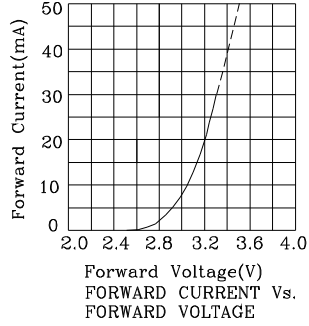
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I <sub>F</sub> =20mA) mcd		Wavelength nm λ <sub>P</sub>	Viewing Angle 2 θ 1/2
				min.	typ.		
ZMDKBBA57W-1	Red	InGaAlP	Water Clear	110	297	650	100°
	Blue	InGaN		70	148	468	



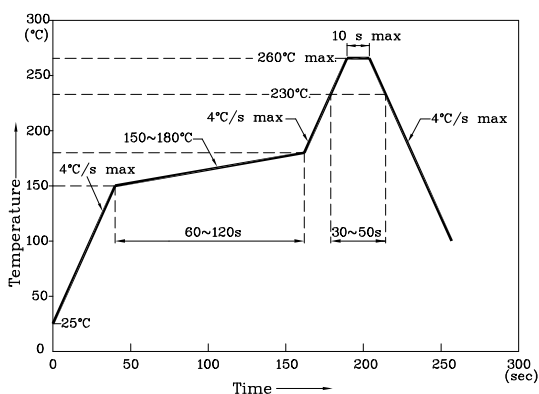
❖ MDK



❖ BBA



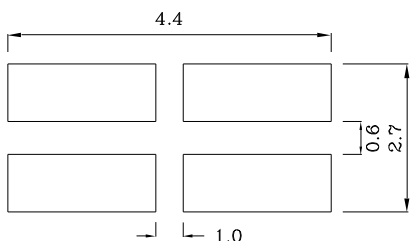
Reflow Soldering Profile For Lead-free SMT Process.



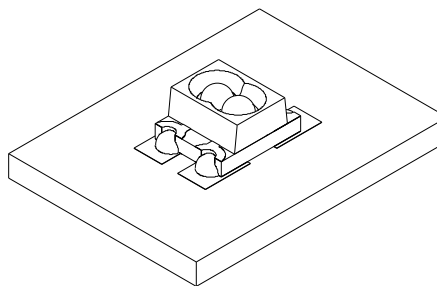
NOTES:

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.

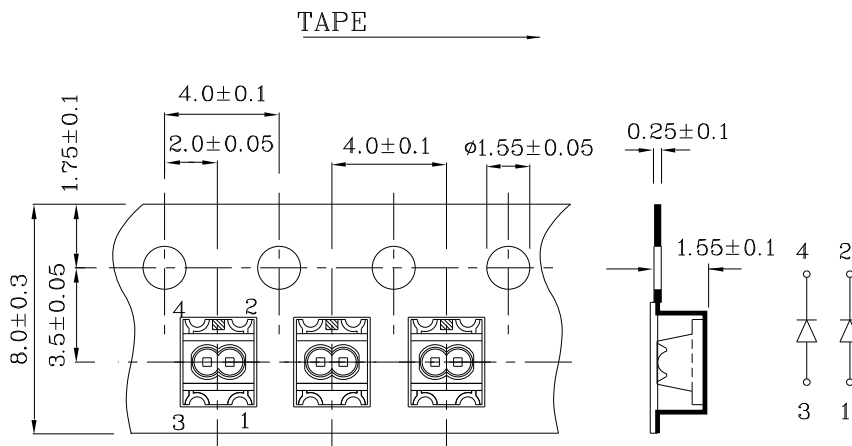
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ±0.1)



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



❖ Tape Specification (Units : mm)



Remarks:

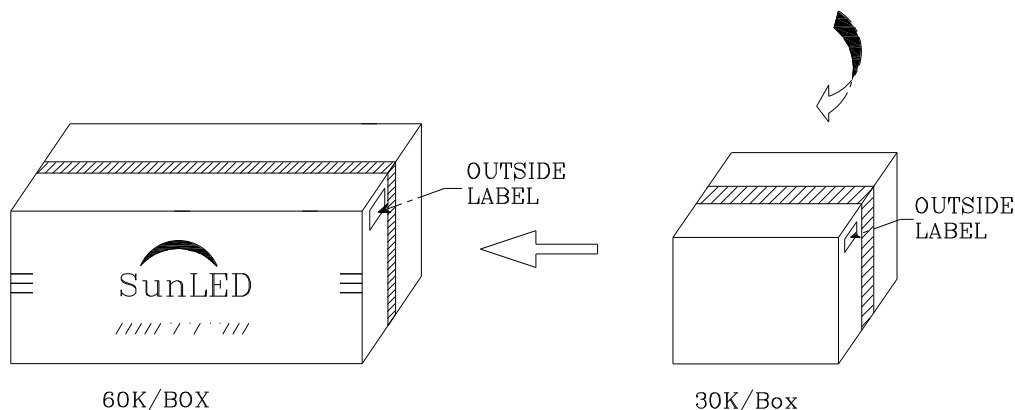
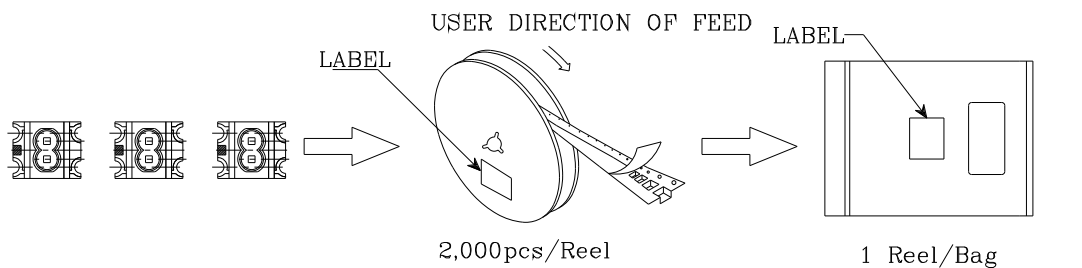
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:


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**

**ZMDKBBA57W-1**



P/NO : Zxxx57x-1	
QTY : 2,000 pcs	CODE: XXX
S/N : XX	
LOT NO :	
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	