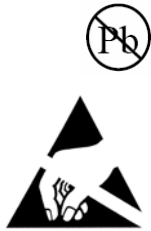


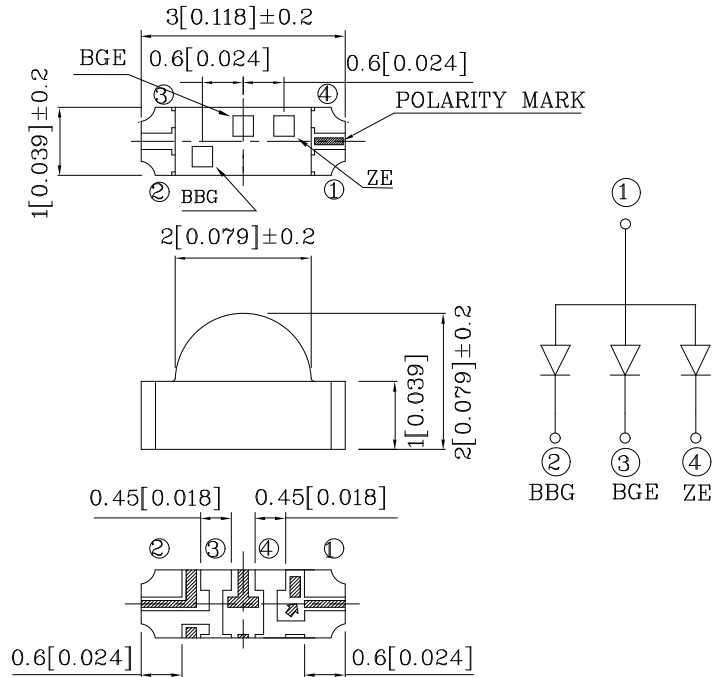
PRELIMINARY SPEC

Features

- LOW POWER CONSUMPTION.
- 3.0mmx1.0mm RIGHT ANGLE SMT LED, 2.0mm THICKNESS.
- CAN PRODUCE ANY COLOR IN VISIBLE SPECTRUM, INCLUDING WHITE LIGHT.
- PACKAGE: 2000PCS/ REEL.
- MOISTURE SENSIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



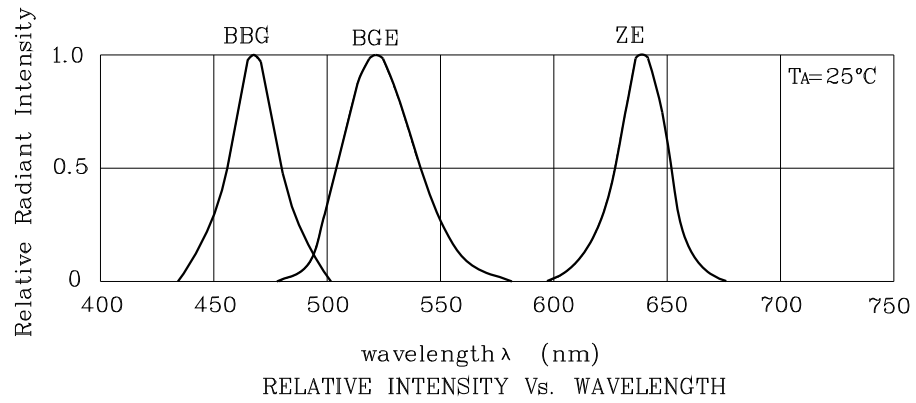
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.1(0.004)$ " unless otherwise noted.
3. Specifications are subject to change without notice.

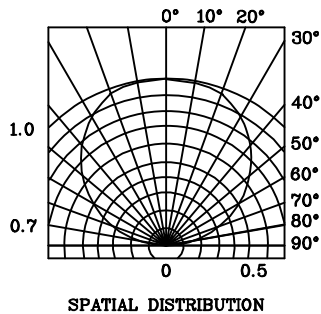
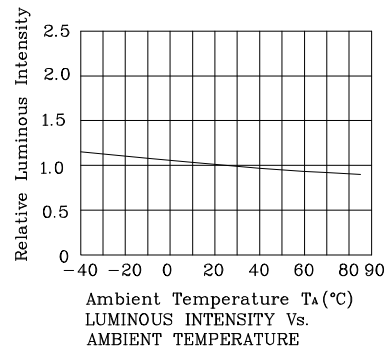
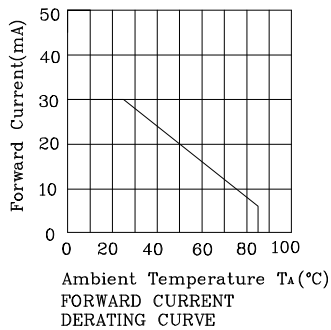
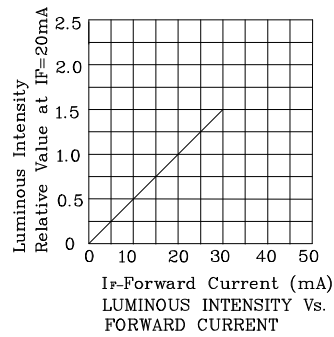
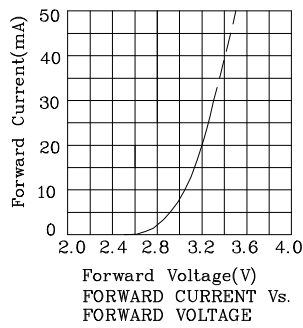
Absolute Maximum Ratings ($T_A=25^\circ\text{C}$)		BBG (InG aN)	BGE (InGa N)	ZE (InGa AlP)	Unit
Reverse Voltage	V_R	5	5	5	V
Forward Current	I_F	30	30	30	mA
Forward Current (Peak) 1/10Duty Cycle 0.1ms Pulse Width	i_{FS}	100	100	150	mA
Power Dissipation	P_T	120	120	84	mW
Electrostatic Discharge Threshold (HBM)		1000	1000	-	V
Operating Temperature	T_A	-40 ~ +85			°C
Storage Temperature	T_{stg}	-40 ~ +85			

Operating Characteristics ($T_A=25^\circ\text{C}$)		BBG (InG aN)	BGE (InGa N)	ZE (InGa AlP)	Unit
Forward Voltage (Typ.) ($I_F=20\text{mA}$)	V_F	3.2	3.2	2.2	V
Forward Voltage (Max.) ($I_F=20\text{mA}$)	V_F	4.0	4.0	2.8	V
Reverse Current (Max.) ($V_R=5\text{V}$)	I_R	10	10	10	μA
Wavelength of Peak Emission (Typ.) ($I_F=20\text{mA}$)	λ_P	468	520	640	nm
Wavelength of Dominant Emission (Typ.) ($I_F=20\text{mA}$)	λ_D	470	525	630	nm
Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$)	$\Delta\lambda$	21	35	25	nm
Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$)	C	100	100	27	pF

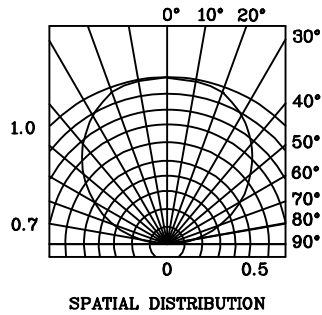
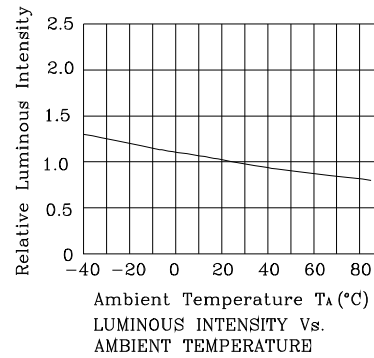
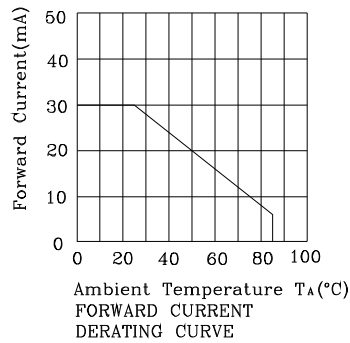
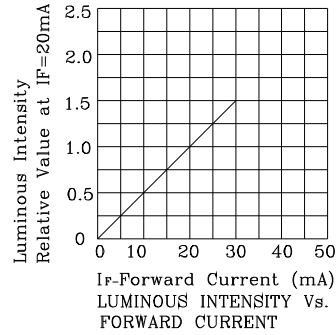
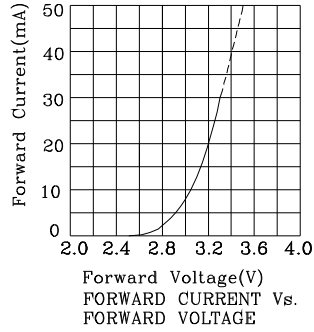
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity ($I_F=20\text{mA}$) mcd		Wavelength nm λ_P	Viewing Angle 2 θ 1/2
				min.	typ.		
ZBBGBGEZE56W-3	Blue	InGaN	Water Clear	36	89	468	120°
	Green	InGaN		70	278	520	
	Red	InGaAlP		380	647	640	



❖ **BBG**

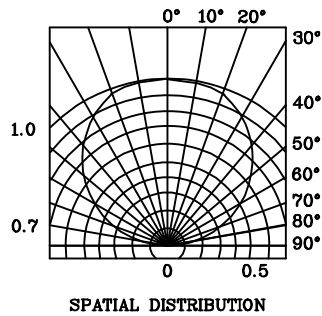
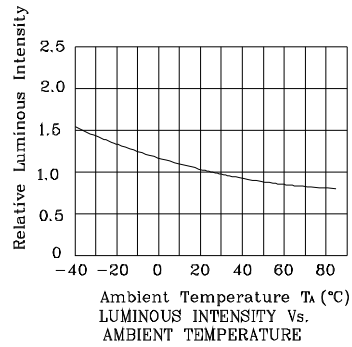
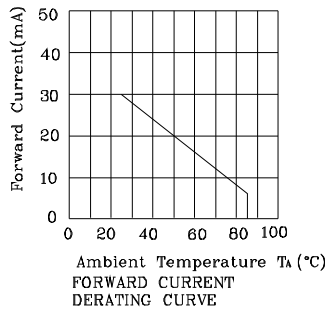
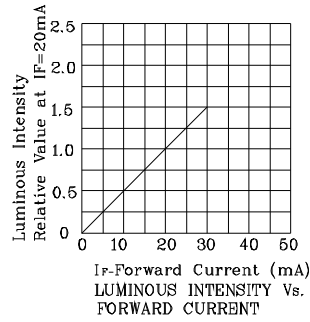
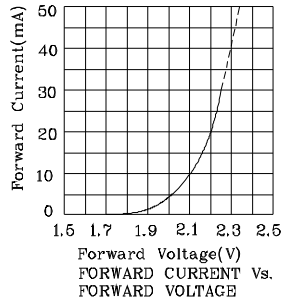


❖ BGE

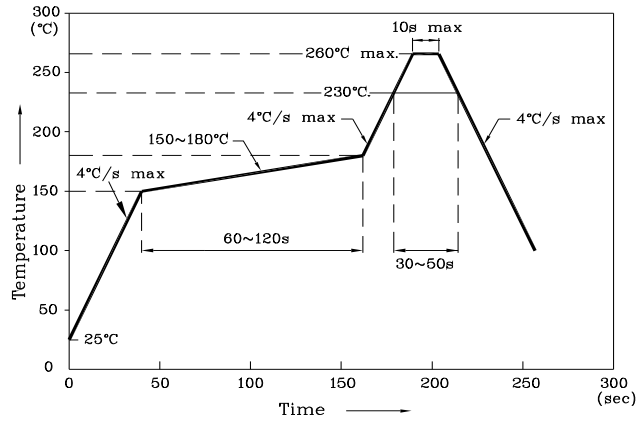




❖ ZE



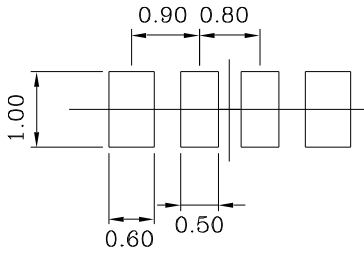
Reflow Soldering Profile For Lead-free SMT Process.



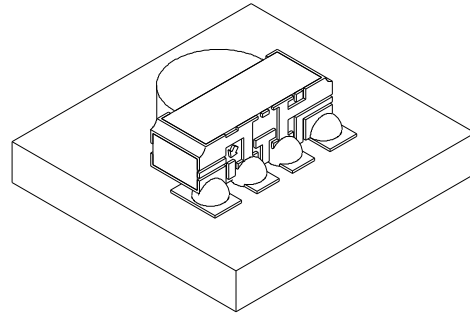
Notes:

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.

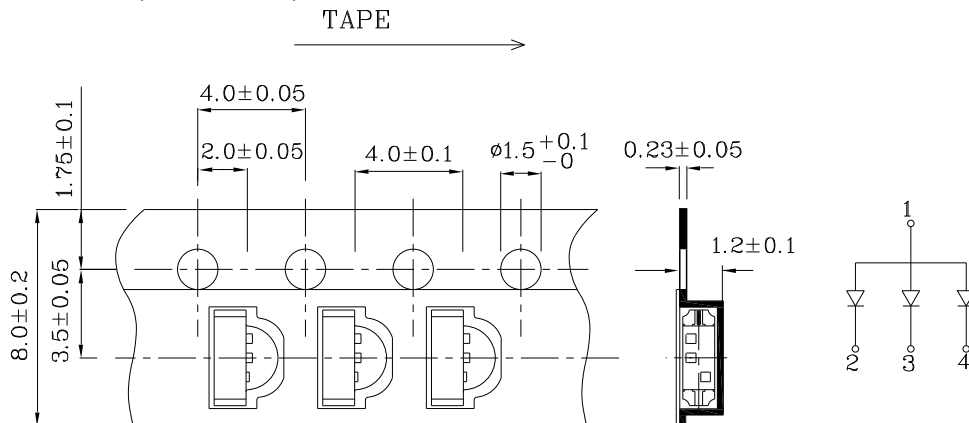
❖ Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.1)



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



❖ Tape Specification (Units : mm)



Remarks:

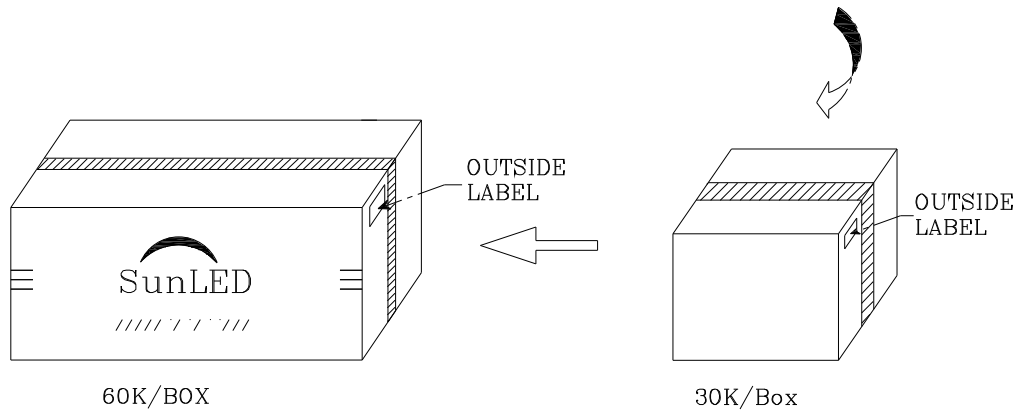
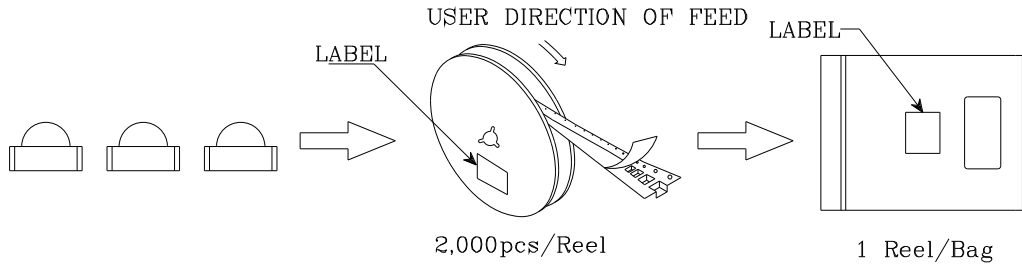

If special sorting is required (e.g. binning based on forward voltage, luminous intensity/ luminous flux or wavelength), the typical accuracy of the sorting process is as follows:

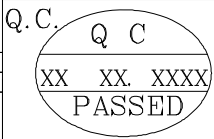

1. Wavelength: +/-1nm
2. Luminous Intensity/ Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS

ZBBGBGEZE56W-3

	
P/NO : Zxxx56x-3	
QTY : 2,000 pcs	CODE: XXX
S/N : XX	
LOT NO :	
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	