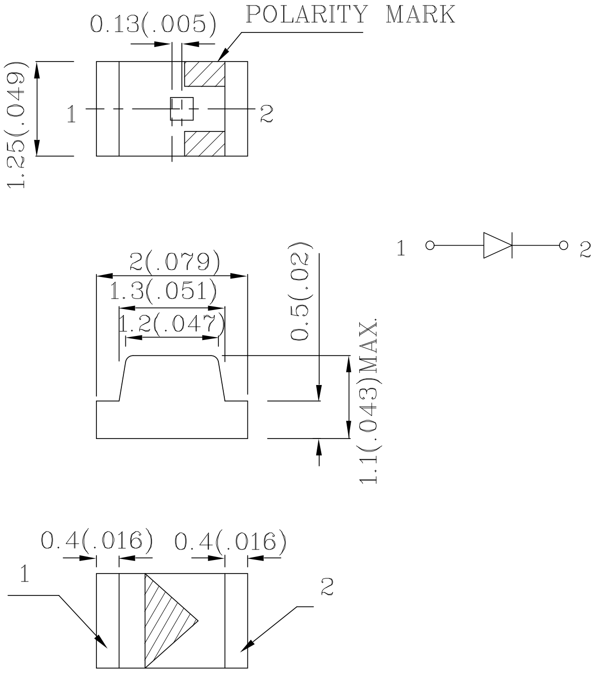
Part Number: **XZBBA54W**

2.0x1.25mm SMD CHIP LED LAMP

Features

- 2.0mmx1.25mm SMT LED,1.1mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

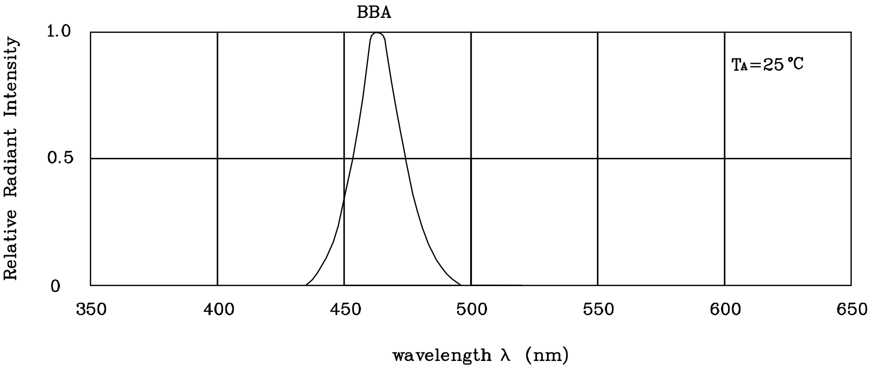


Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.1(0.004") unless otherwise noted.
3.Specifications are subject to change without notice.

Absolute maximum ratings (T_A=25°C)		**BBA (InGaN)**	**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}	100	mA
Power Dissipation	P_T	120	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	
Electrostatic Discharge Threshold (HBM)		1000	V

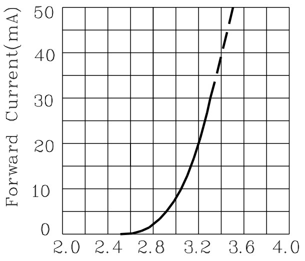
Operating Characteristics (T_A=25°C)		**BBA (InGaN)**	**Unit**
Forward Voltage (Typ.) (I_F=20mA)	V_F	3.2	V
Forward Voltage (Max.) (I_F=20mA)	V_F	4.0	V
Reverse Current (Max.) (V_R=5V)	I_R	10	uA
Wavelength of Peak Emission (Typ.) (I_F=20mA)	λ P	468	nm
Wavelength of Dominant Emission (Typ.) (I_F=20mA)	λ D	470	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=20mA)	Δλ	21	nm
Capacitance (V_F=0V, f=1MHz)	C	100	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I_F=20mA) mcd		Wavelength nm λ P	Viewing Angle 2 θ 1/2
				min.	typ.		
XZBBA54W	Blue	InGaN	Water Clear	18	59	468	120°

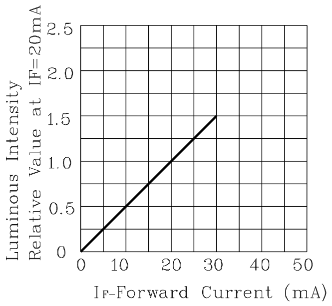


RELATIVE INTENSITY Vs. WAVELENGTH

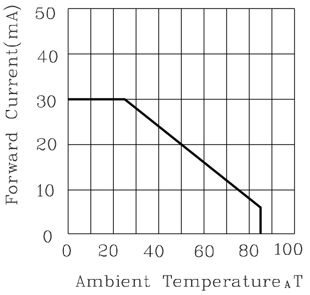
❖ BBA



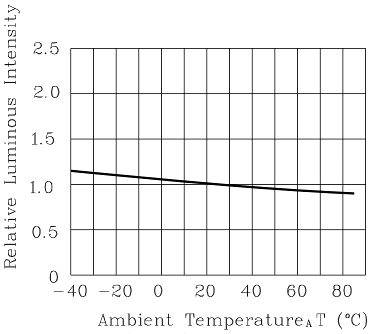
FORWARD CURRENT Vs.
FORWARD VOLTAGE



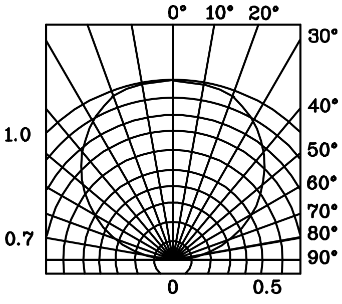
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

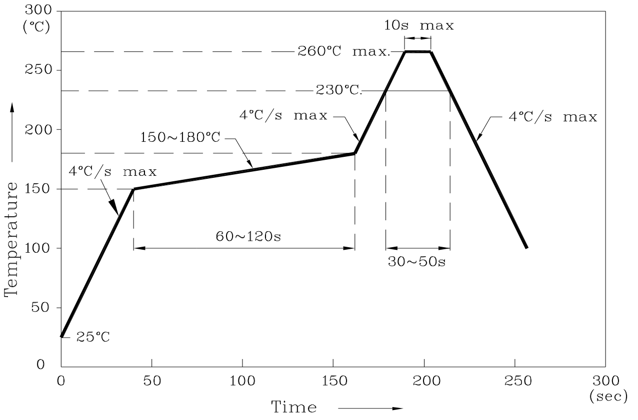


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



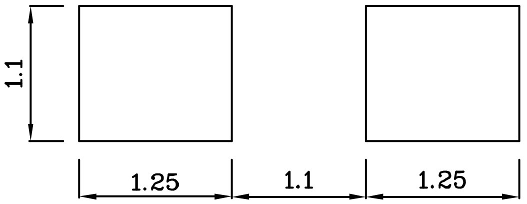
SPATIAL DISTRIBUTION

Reflow Soldering Profile For Lead-free SMT Process.

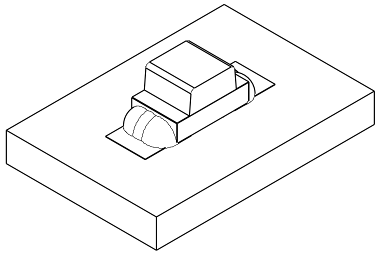


Notes:
1. Maximum soldering temperature should not exceed 260°C.
2. Recommended reflow temperature: 145°c−260°C.
3. Do not put stress to the epoxy resin during high temperatures conditions.

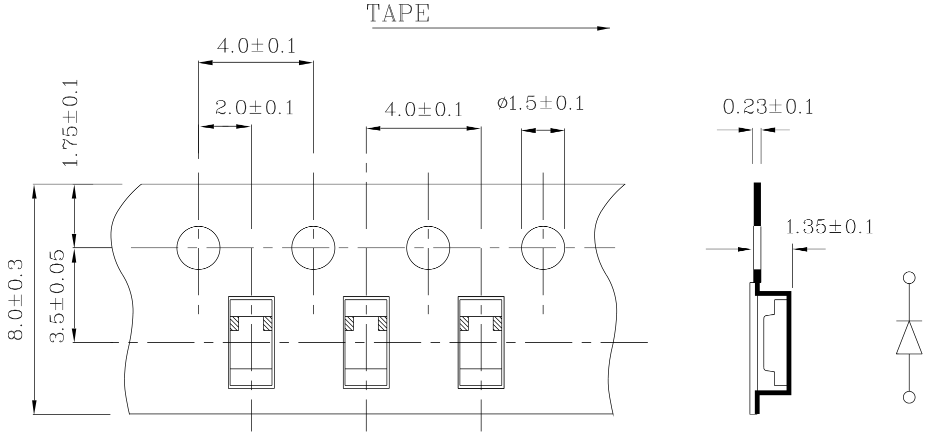
❖ Recommended Soldering Pattern (Units: mm ; Tolerance: ± 0.1)



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



❖ Tape Specification (Units : mm)



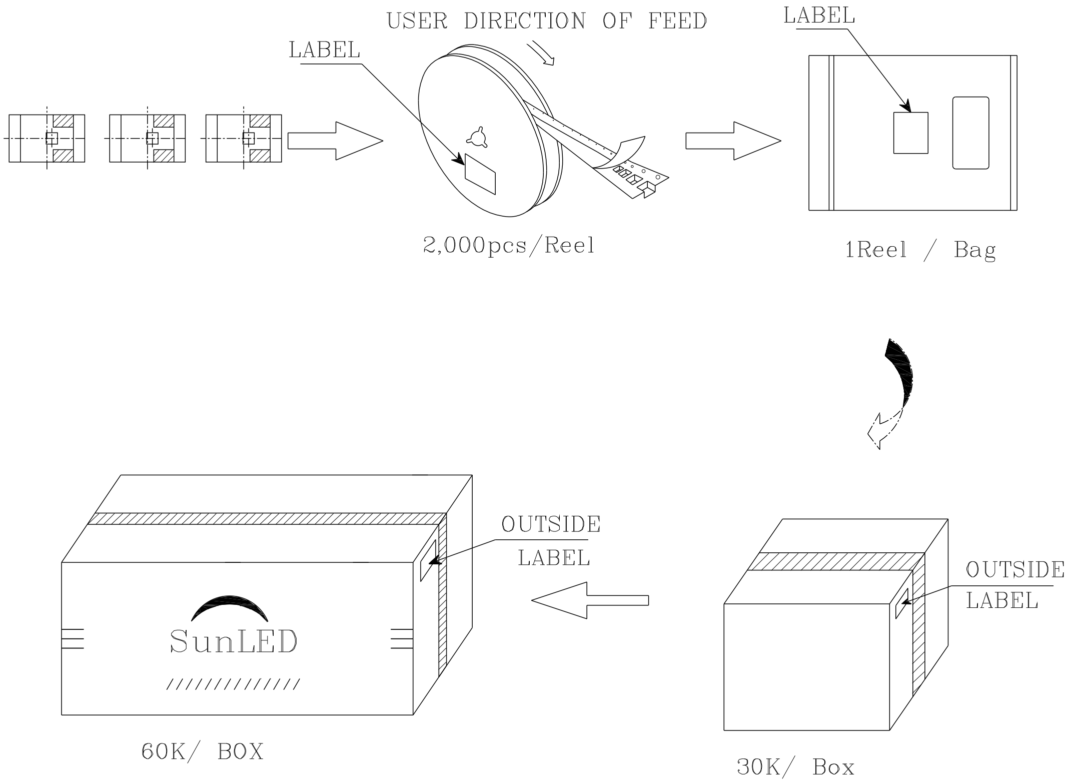
Remarks:

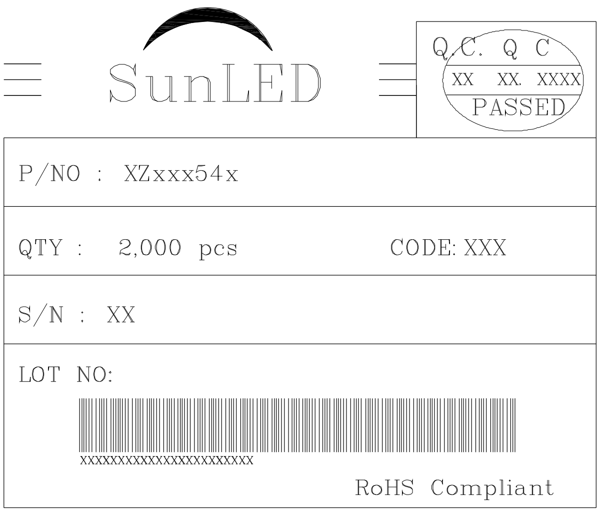
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

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 XZBBA54W





Q.C. Q C
XX XX. XXXX
PASSED

P/NO : XZxxx54x

QTY : 2,000 pcs CODE: XXX

S/N : XX

LOT NO:

XXXXXXXXXXXXXXXXXXXXXXXXX

RoHS Compliant