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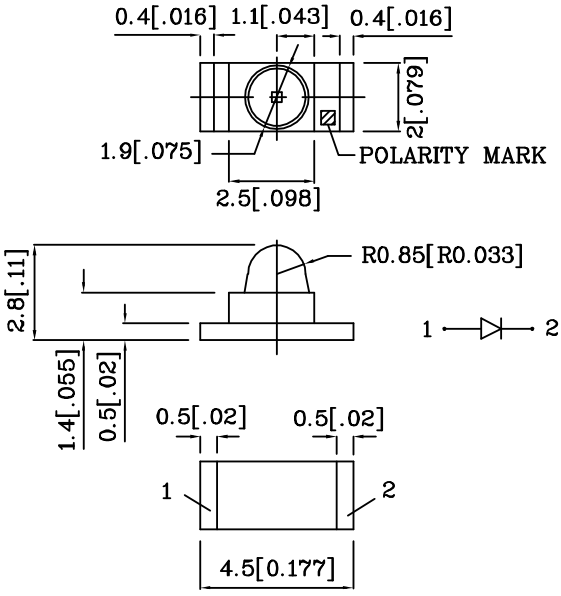
Part Number: XZBG77W

4.5x2mm SMD CHIP LED LAMP

Features

- 4.5x2mm SMT LED,0.5mm THICKNESS
- LOW POWER CONSUMPTION.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 1000PCS/REEL.
- ELECTROSTATIC DISCHARGE CLASSIFICATION CLASS 1/HBM(MIL-STD-883METHOD3015.7).
- RoHS COMPLIANT.

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



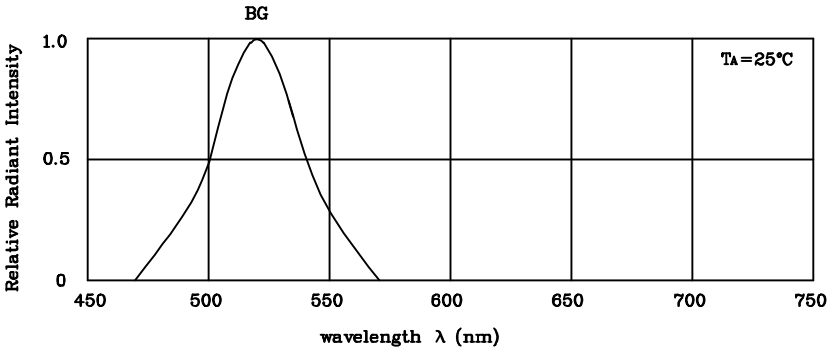
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.2(0.008") unless otherwise noted.

Absolute maximum ratings (TA=25°C)		**BG (InGaN)**	**Unit**
Reverse Voltage	VR	5	V
Forward Current	IF	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	150	mA
Power Dissipation	PT	105	mW
Operating Temperature	TA	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	

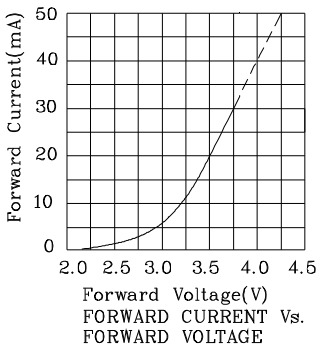
Operating Characteristics (TA=25°C)		**BG (InGaN)**	**Unit**
Forward Voltage (Typ.) (IF=20mA)	VF	3.5	V
Forward Voltage (Max.) (IF=20mA)	VF	4.5	V
Reverse Current (VR=5V)	IR	10	uA
Wavelength of Peak Emission (IF=20mA)	λ P	520	nm
Wavelength of Dominant Emission (IF=20mA)	λ D	525	nm
Spectral Line Full Width At Half-Maximum (IF=20mA)	Δλ	38	nm
Capacitance (VF=0V, f=1MHz)	C	45	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd		Wavelength nm λ P	Viewing Angle 2 θ 1/2
				min.	typ.		
XZBG77W	Green	InGaN	Water Clear	380	745	520	20°

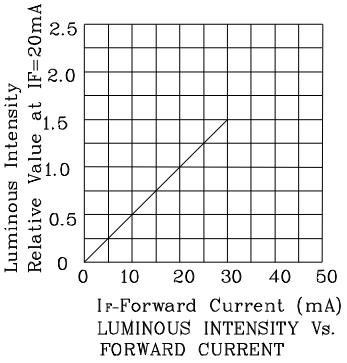


RELATIVE INTENSITY Vs. WAVELENGTH

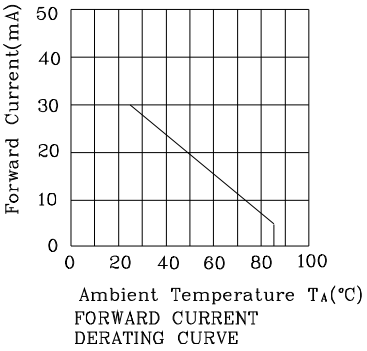
❖ **BG**



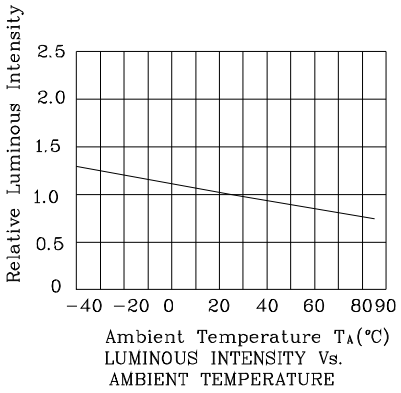
FORWARD CURRENT Vs.
FORWARD VOLTAGE



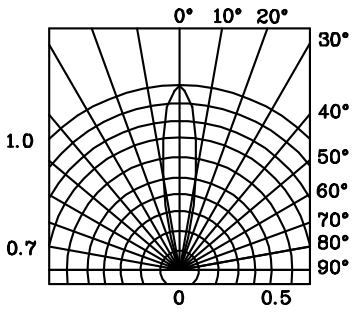
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE

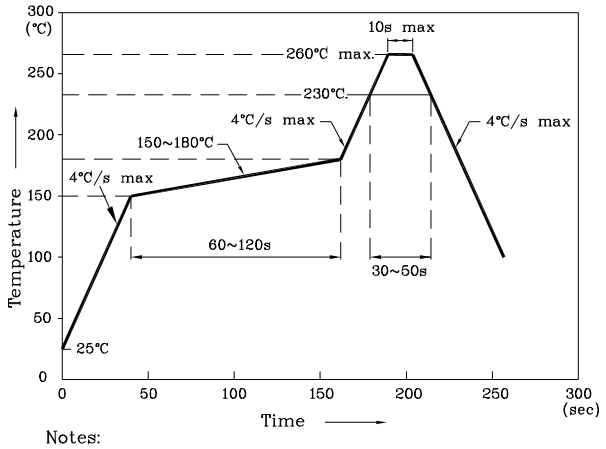


LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

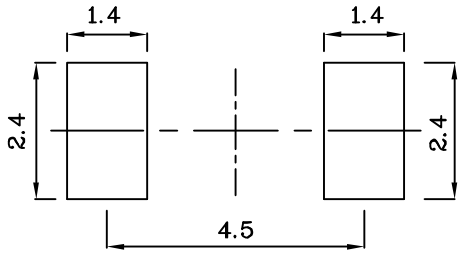
Reflow Soldering Profile For Lead-free SMT Process.



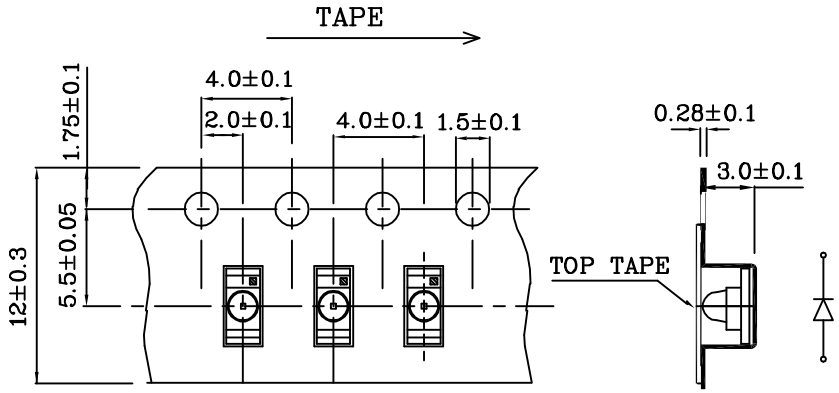
Notes:

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

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



❖ Tape Specification (Units : mm)



Remarks:

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

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

Note: Accuracy may depend on the sorting parameters.