

Features

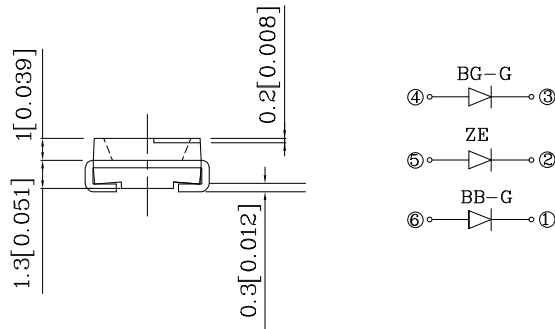
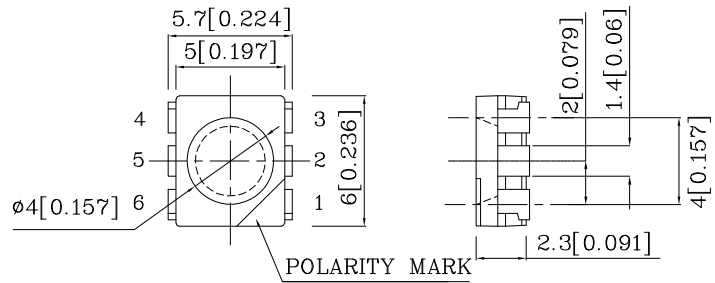
- CHIPS CAN BE CONTROLLED SEPARATELY.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE: 500PCS / REEL.
- RoHS COMPLIANT.



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Notes:

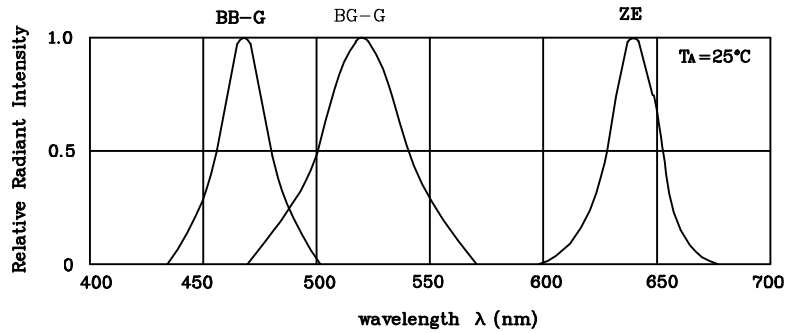
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.



Absolute maximum ratings (TA=25°C)		BB-G (InGaN)	ZE (InGaAlP)	BG-G (InGaN)	Unit
Reverse Voltage	V _R	5	5	5	V
Forward Current	I _F	30	50	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	150	150	150	mA
Total Power Dissipation Within 350mW at All Chips are Lightened	P _T	350			mW
Operating Temperature	T _A	-40 ~ +85			°C
Storage Temperature	T _{stg}	-40 ~ +85			

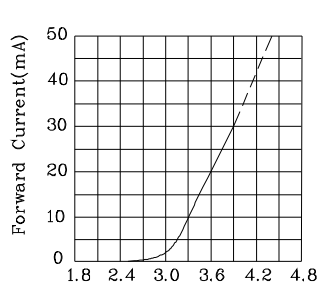
Operating Characteristics (TA=25°C)		BB-G (InGaN)	ZE (InGaAlP)	BG-G (InGaN)	Unit
Forward Voltage (Typ.) (I _F =20mA)	V _F	3.6	2.2	3.5	V
Forward Voltage (Max.) (I _F =20mA)	V _F	4.3	2.8	4.5	V
Reverse Current (V _R =5V)	I _R	10	10	10	uA
Wavelength of Peak Emission (I _F =20mA)	λ _P	468	640	518	nm
Wavelength of Dominant Emission (I _F =20mA)	λ _D	470	630	525	nm
Spectral Line Full Width At Half- Maximum (I _F =20mA)	Δλ	26	25	36	nm
Capacitance (V _F =0V, f=1MHz)	C	110	27	50	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I _F =30mA *50mA) mcd		Wavelength nm λ _P	Viewing Angle 2θ 1/2
				min.	typ.		
XZBBGZEBGG82W-2	Blue	InGaN	Water Clear	180	297	468	100°
	Red	InGaAlP		*900	*1790	640	
	Green	InGaN		380	745	518	

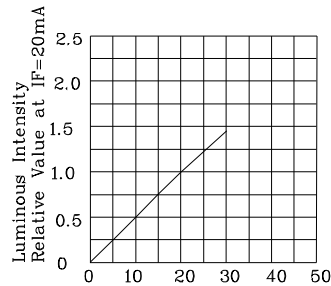


RELATIVE INTENSITY Vs. WAVELENGTH

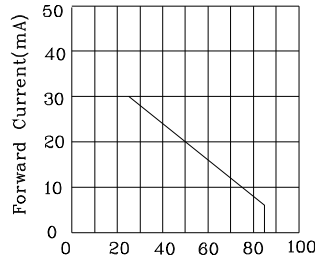
❖ **BB-G**



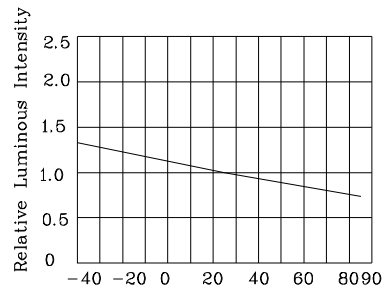
FORWARD CURRENT Vs. FORWARD VOLTAGE



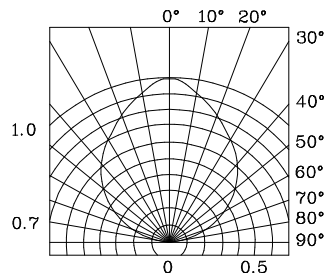
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

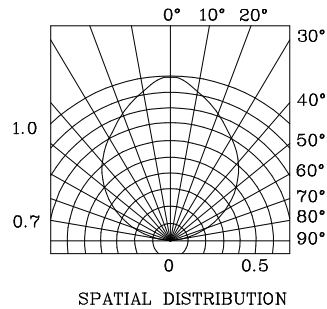
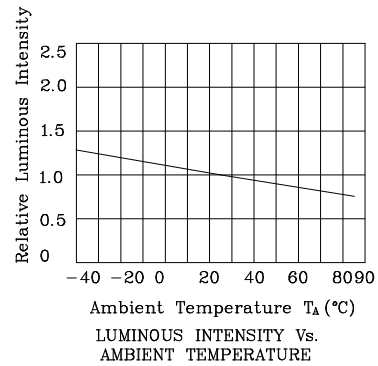
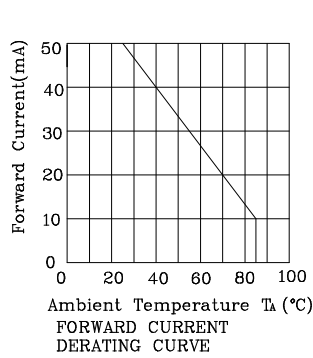
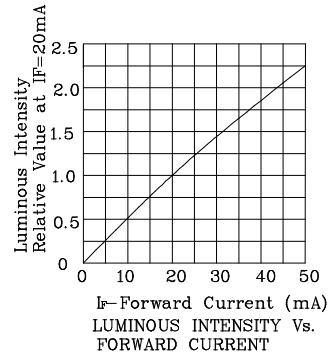
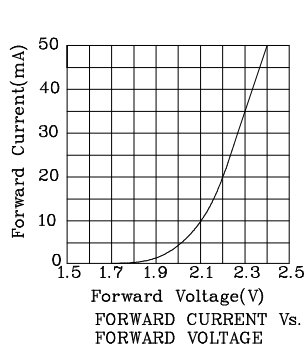


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

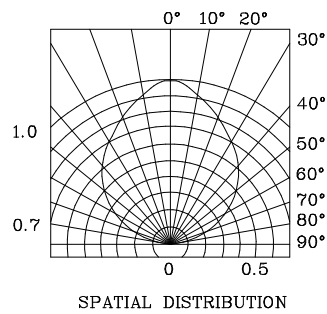
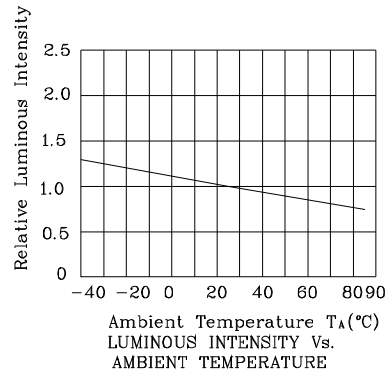
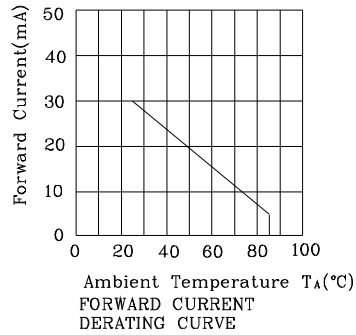
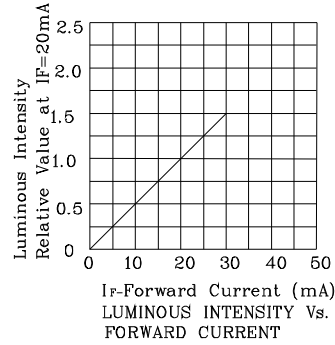
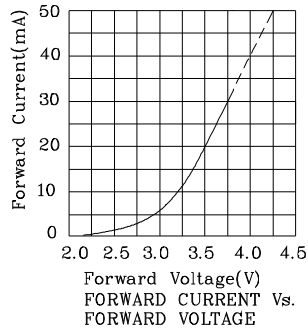


SPATIAL DISTRIBUTION

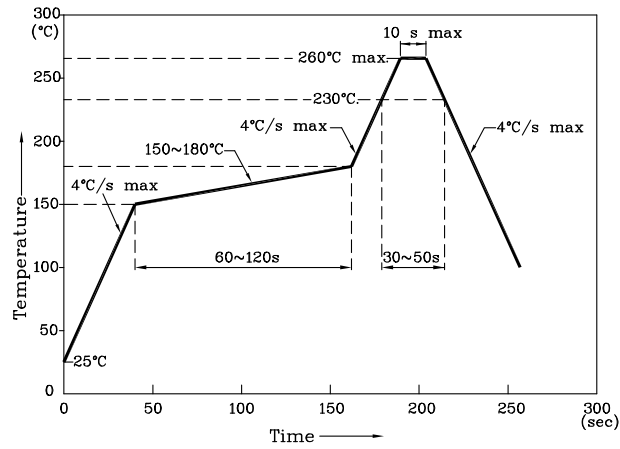
❖ ZE



❖ BG-G



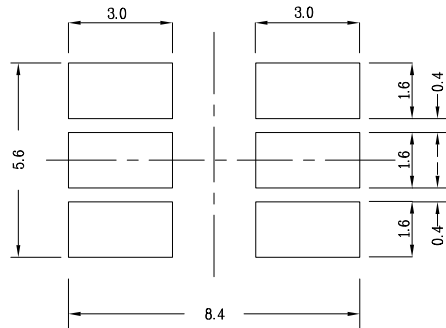
Reflow Soldering Profile For Lead-free SMT Process.



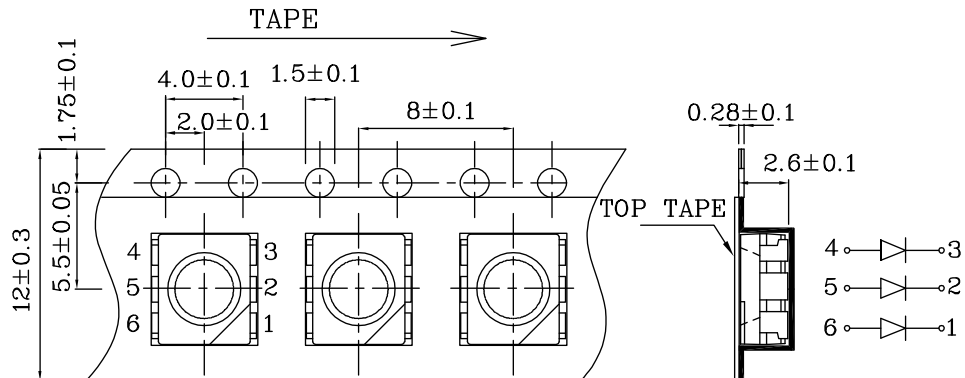
NOTES:

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)



❖ 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.