

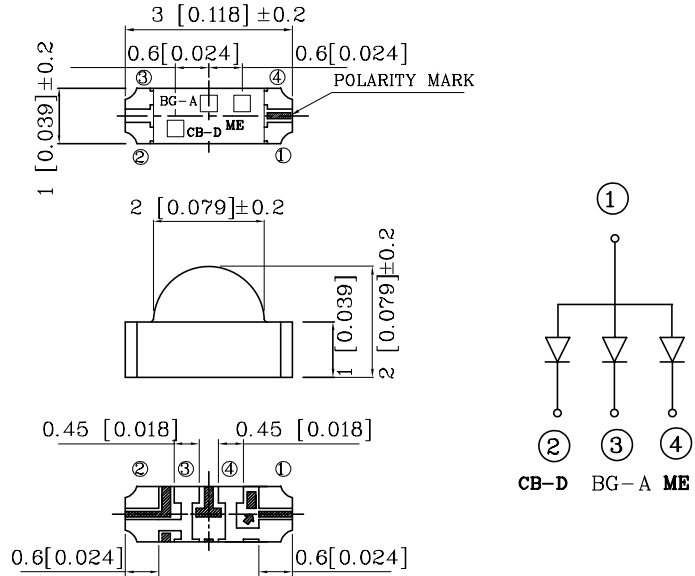
PRELIMINARY SPEC

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 SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.



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



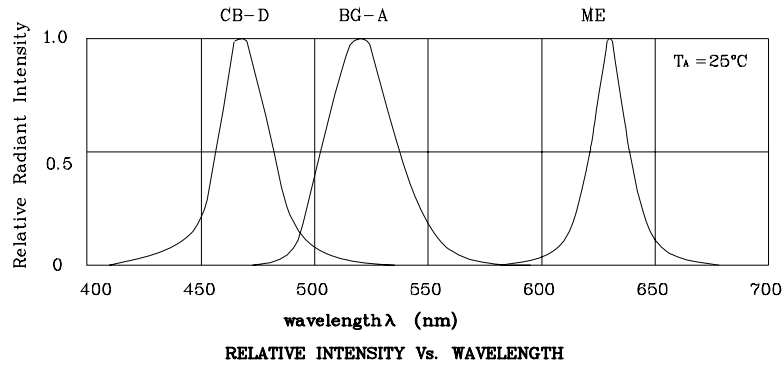
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.1 (0.004") unless otherwise noted.

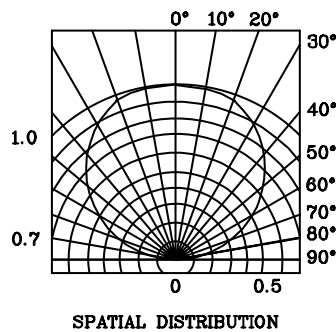
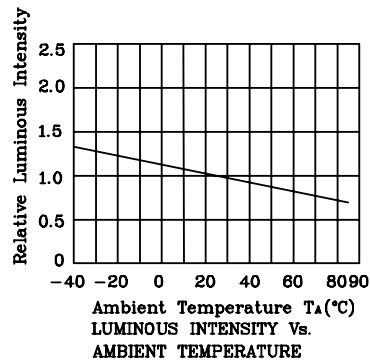
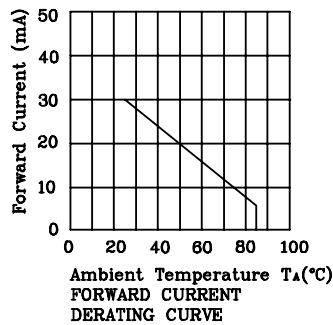
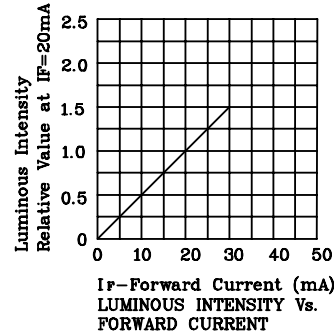
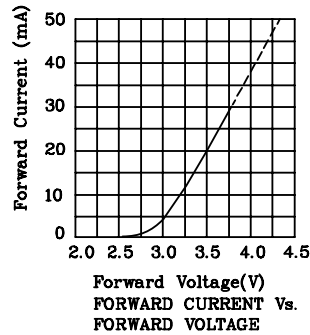
Absolute maximum ratings (TA=25°C)		CB-D (GaN)	BG-A (InGa N)	ME (InGa AIP)	Unit
Reverse Voltage	V <sub>R</sub>	5	5	5	V
Forward Current	I <sub>F</sub>	30	30	30	mA
Forward Current (Peak) 1/10Duty Cycle 0.1ms Pulse Width	i <sub>FS</sub>	150	100	195	mA
Power Dissipation	P <sub>T</sub>	120	120	75	mW
Electrostatic 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)		CB-D (GaN)	BG-A (InGa N)	ME (InGa AIP)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	3.5	3.2	2.0	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	4.0	4.0	2.5	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	I <sub>R</sub>	10	10	10	uA
Wavelength of Peak Emission (Typ.) (I <sub>F</sub> =20mA)	λ <sub>P</sub>	468	520	630	nm
Wavelength of Dominant Emission (Typ.) (I <sub>F</sub> =20mA)	λ <sub>D</sub>	470	525	621	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	25	35	20	nm
Capacitance (V <sub>F</sub> =0V, f=1MHz)	C	100	100	25	pF

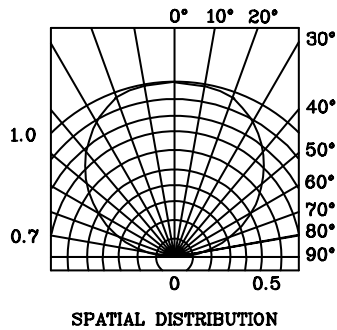
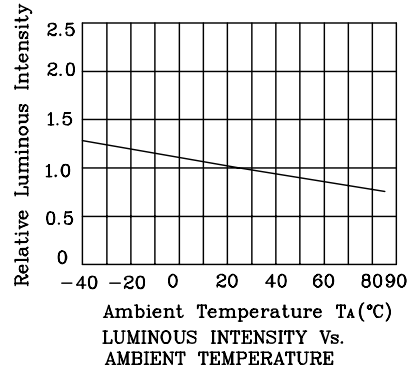
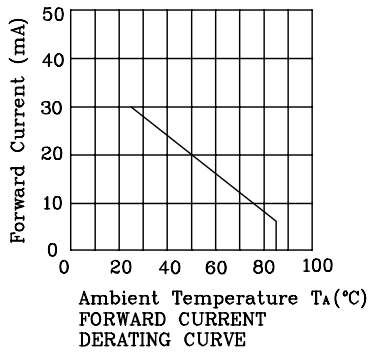
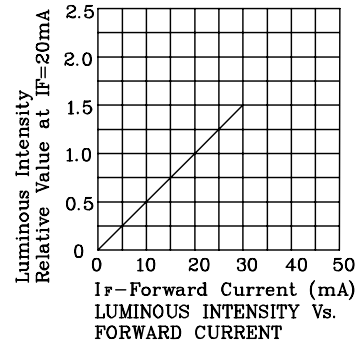
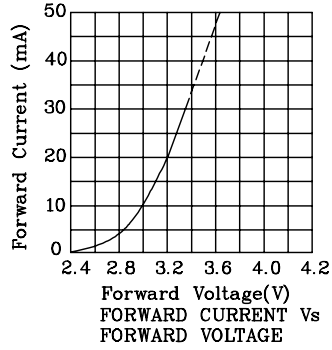
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I <sub>F</sub> =20mA)		Wavelength nm λ <sub>P</sub>	Viewing Angle 2 θ 1/2
				min.	typ.		
XZCBDBGAME56W-3	Blue	GaN	Water Clear	50	98	468	120°
	Green	InGa N		70	248	520	
	Red	InGaAIP		110	297	630	



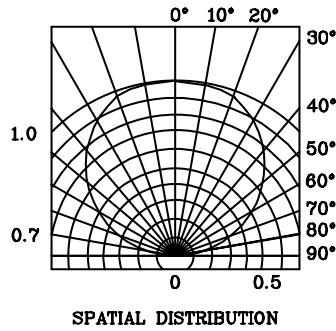
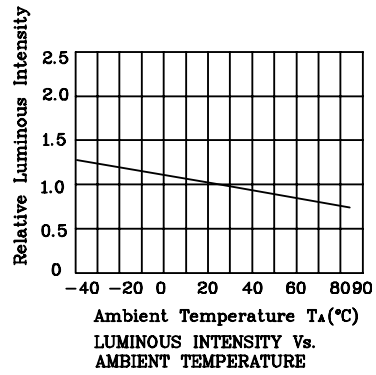
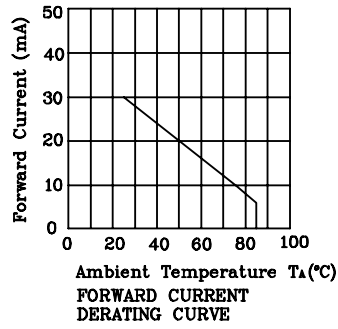
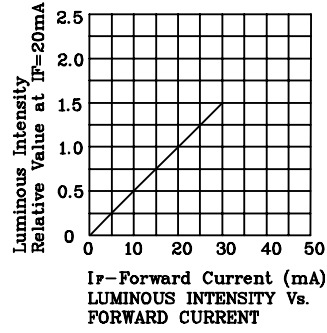
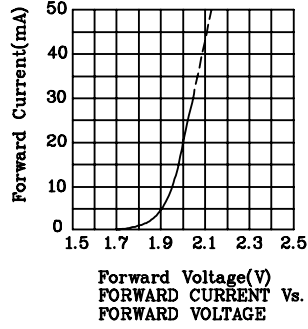
❖ CB-D



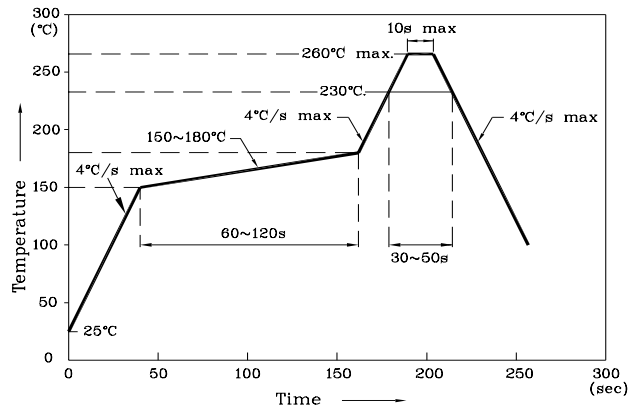
❖ BG-A



❖ ME



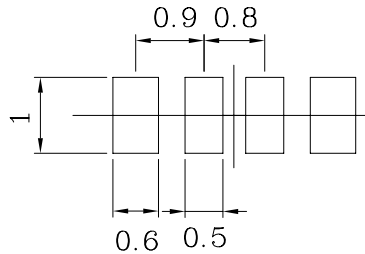
Reflow Soldering Profile For Lead-free SMT Process.



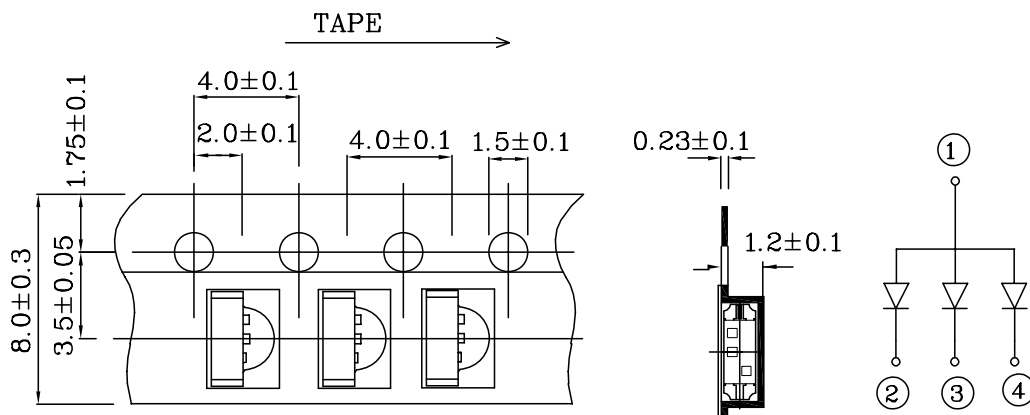
Notes:

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 / 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.