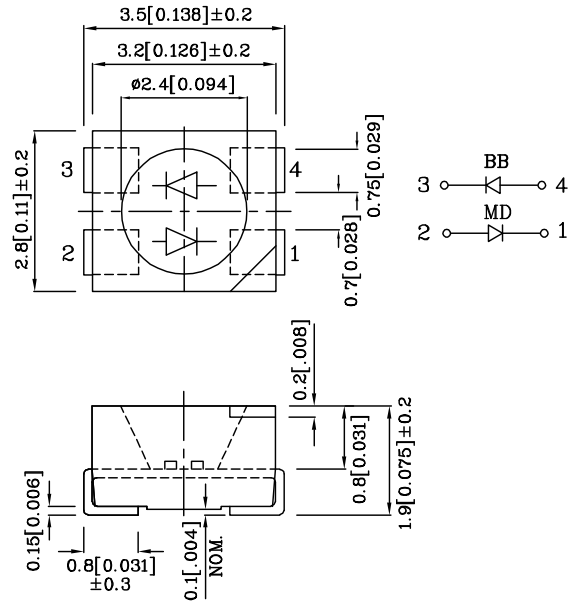


Features

- BOTH CHIPS CAN BE CONTROLLED SEPARATELY.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE: 1500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.



ATTENTION
 OBSERVE PRECAUTIONS
 FOR HANDLING
 ELECTROSTATIC
 DISCHARGE
 SENSITIVE
 DEVICES



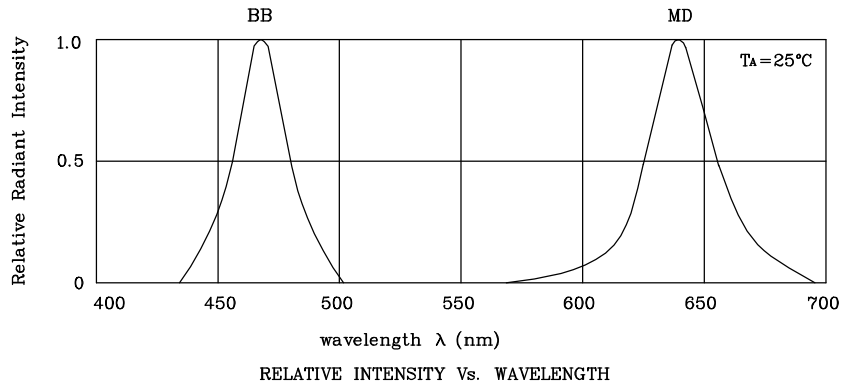
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25(0.01") unless otherwise noted.

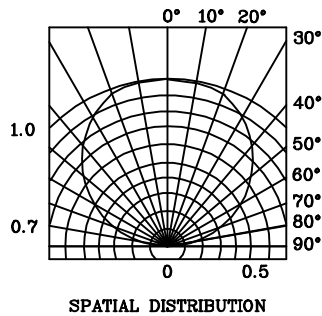
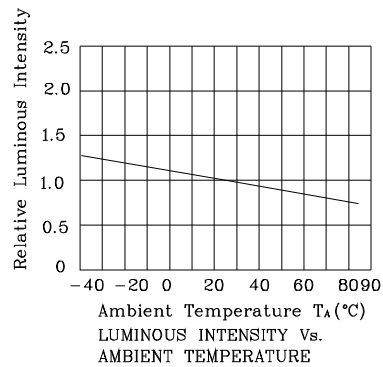
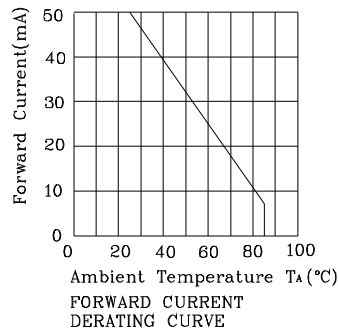
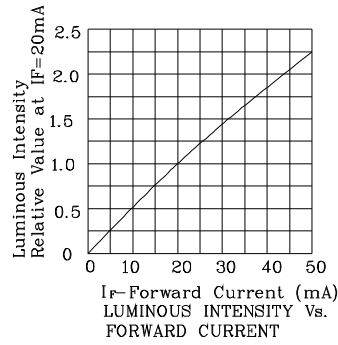
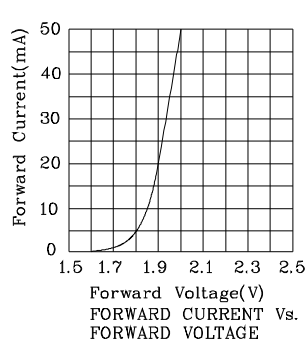
Absolute Maximum Ratings (TA=25°C)		MD (InGaAlP)	BB (InGaN)	Unit
Reverse Voltage	VR	5	5	V
Forward Current	IF	50	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	iFS	185	160	mA
Power Dissipation	PT	125	126	mW
Operating Temperature	TA	-40 ~ +85		°C
Storage Temperature	Tstg	-40 ~ +85		
Electrostatic Discharge Threshold (HBM)		—	1000	V

Operating Characteristics (TA=25°C)		MD (InGaAlP)	BB (InGaN)	Unit
Forward Voltage (Typ.) (IF=20mA)	VF	1.9	3.65	V
Forward Voltage (Max.) (IF=20mA)	VF	2.5	4.2	V
Reverse Current (Max.) (VR=5V)	IR	10	10	uA
Wavelength of Peak Emission (Typ.) (IF=20mA)	λ P	640	468	nm
Wavelength of Dominant Emission (Typ.) (IF=20mA)	λ D	628	470	nm
Spectral Line Full Width At Half-Maximum (Typ.) (IF=20mA)	Δλ	27	25	nm
Capacitance (Typ.) (VF=0V, f=1MHz)	C	45	65	pF

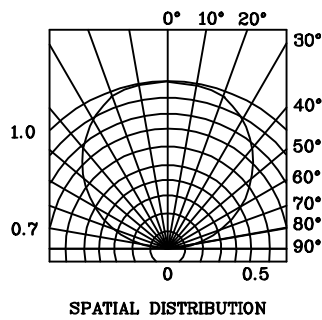
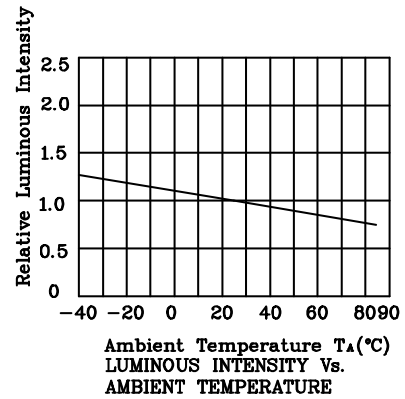
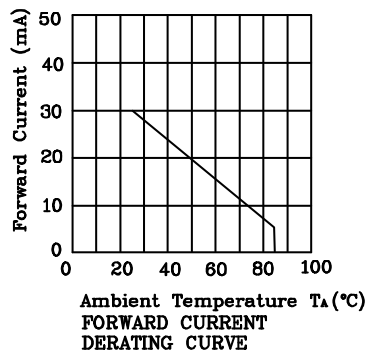
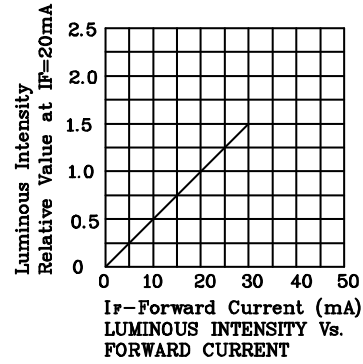
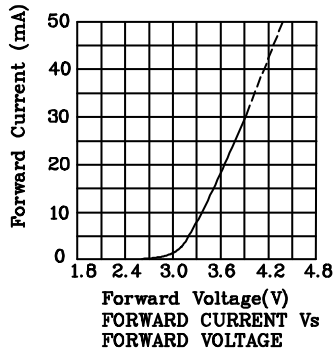
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd		Wavelength nm λ P	Viewing Angle 2θ 1/2
				min.	typ.		
ZMDBB45W	Red	InGaAlP	Water Clear	70	218	640	120°
	Blue	InGaN		36	69	468	



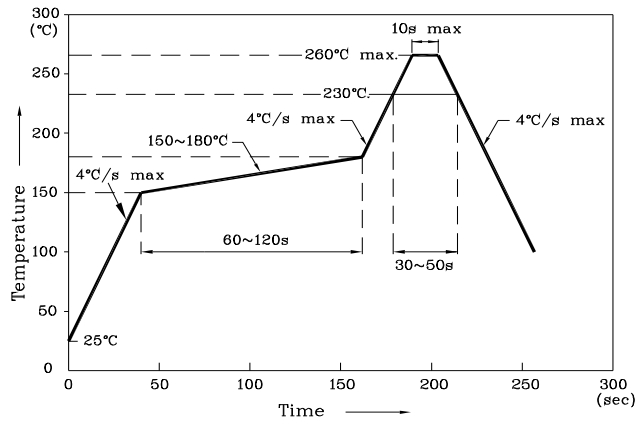
❖ MD



❖ BB



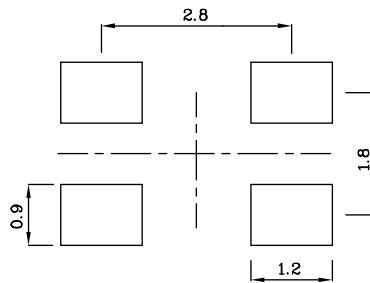
Reflow Soldering Profile For Lead-free SMT Process.



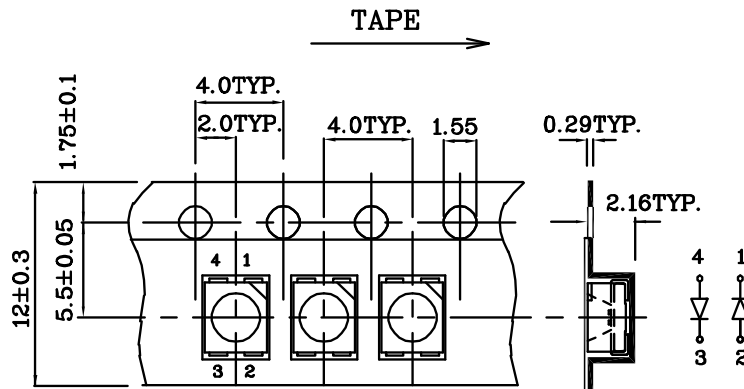
Notes:

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.