

**Features**

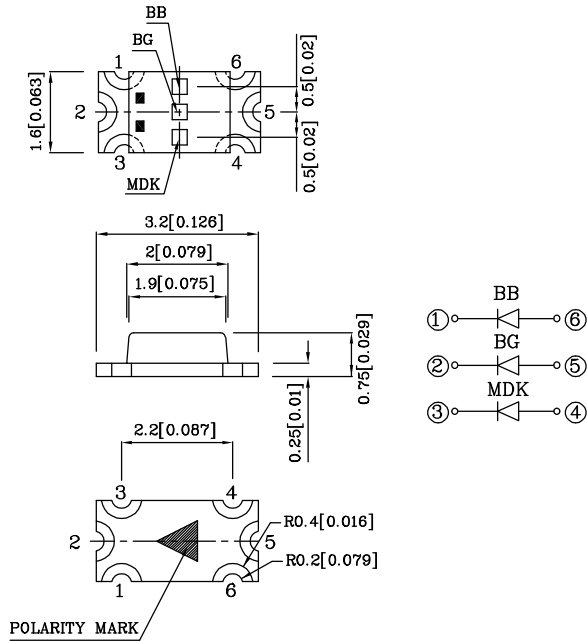
- 3.2mmx1.6mm SMT LED, 0.75mm THICKNESS.
- LOW POWER CONSUMPTION.
- ONE BLUE, ONE GREEN AND ONE RED CHIPS IN ONE PACKAGE.
- CAN PRODUCE ANY COLOR IN VISIBLE SPECTRUM, INCLUDING WHITE LIGHT.
- PACKAGE : 2000PCS / REEL.
- RoHS COMPLIANT.



ATTENTION  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

Notes:

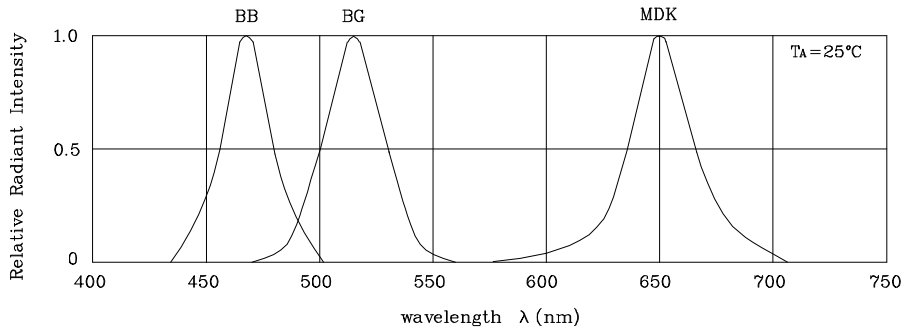
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2(0.008)$  unless otherwise noted.



Absolute Maximum Ratings (TA=25°C)		BB (InGaN)	BG (InGaN)	MDK (InGaAlP)	Unit
Reverse Voltage	VR	5	5	5	V
Forward Current	IF	30	30	30	mA
Forward Current (peak) 1/10Duty Cycle 0.1ms Pulse Width	iFS	160	150	185	mA
Power Dissipation	PT	102	105	170	mW
Operating Temperature	TA	-40 ~ +85			°C
Storage Temperature	Tstg	-40 ~ +85			

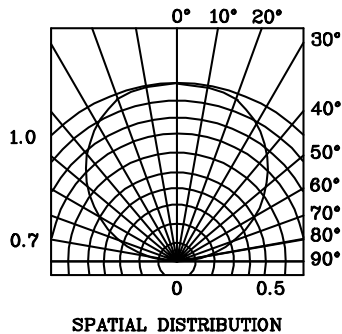
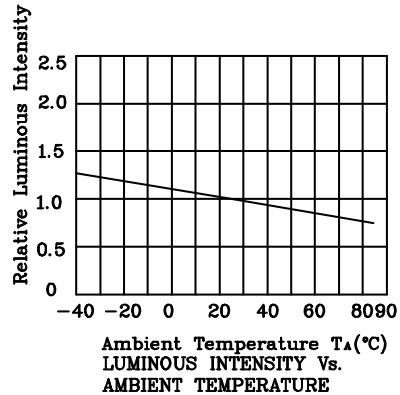
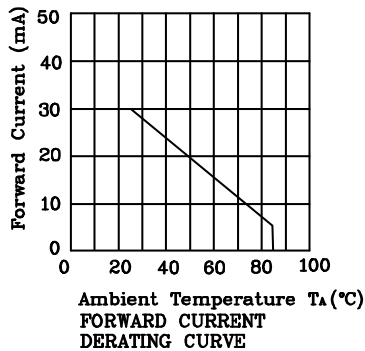
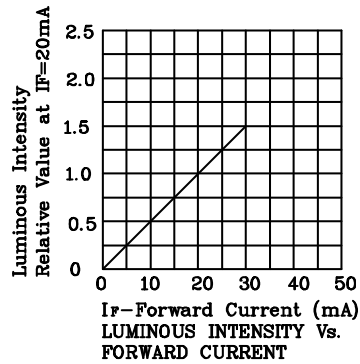
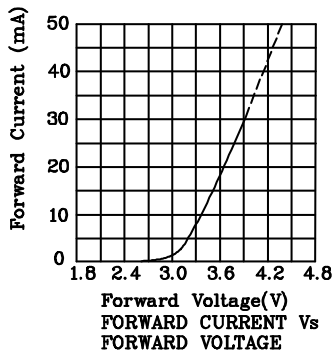
Operating Characteristics (TA=25°C)		BB (InGaN)	BG (InGaN)	MDK (InGaAlP)	Unit
Forward Voltage (typ.) (IF=20mA)	VF	3.65	3.5	1.95	V
Forward Voltage (max.) (IF=20mA)	VF	4.2	4.5	2.5	V
Reverse Current (VR=5V)	IR	10	10	10	uA
Wavelength of Peak Emission (IF=20mA)	$\lambda P$	468	520	650	nm
Wavelength of Dominant Emission (IF=20mA)	$\lambda D$	470	525	635	nm
Spectral Line Full Width At Half-Maximum (IF=20mA)	$\Delta\lambda$	25	38	28	nm
Capacitance (VF=0V, f=1MHz)	C	65	45	35	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (IF=20mA) mcd		Wavelength nm $\lambda P$	Viewing Angle 2 $\theta$ 1/2	
				min.	typ.			
XZBBBGMDK55W-6	Blue	InGaN	Water Clear	50	98	468	120°	
	Green	InGaN		70	148			520
	Red	InGaAlP		70	148			

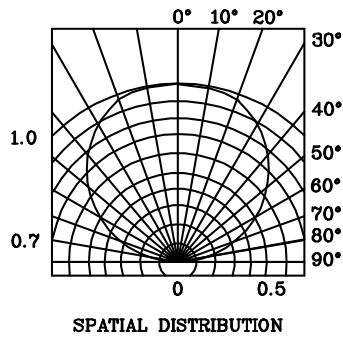
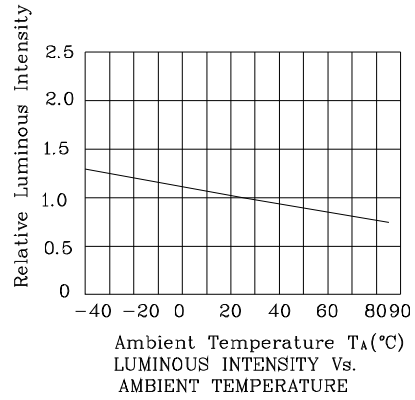
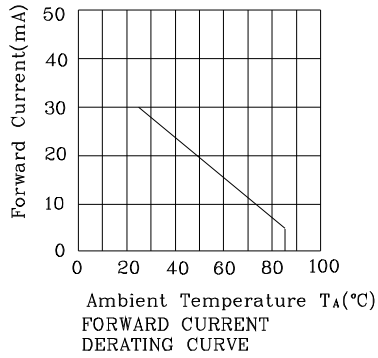
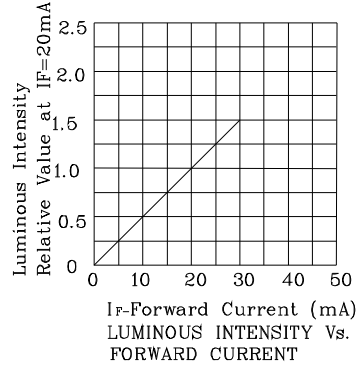
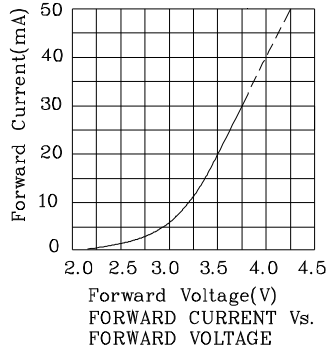


RELATIVE INTENSITY Vs. WAVELENGTH

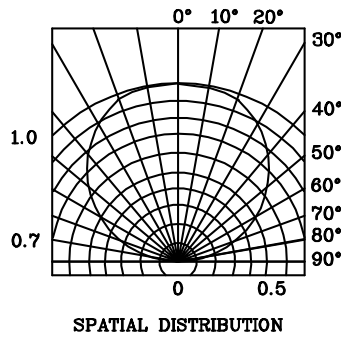
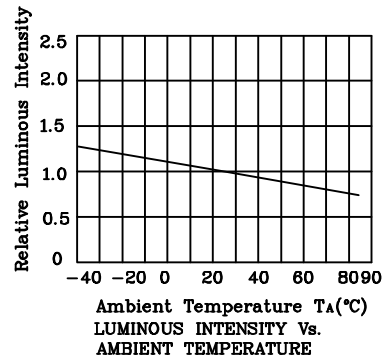
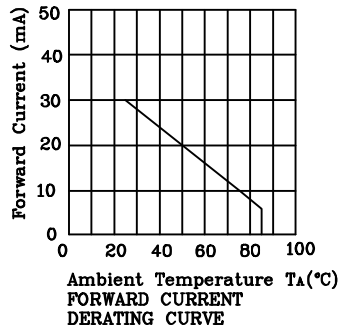
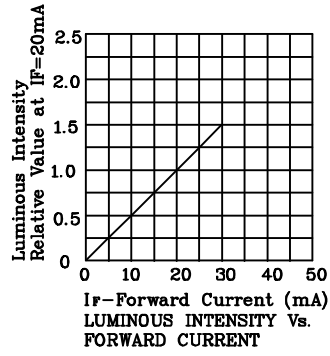
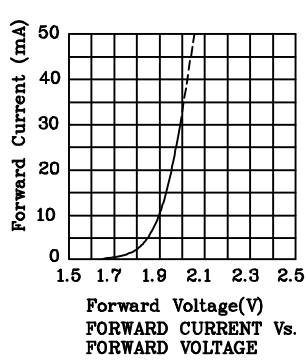
❖ **BB**



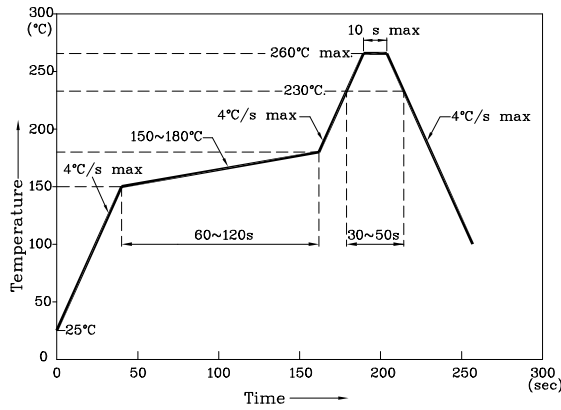
❖ BG



❖ MDK



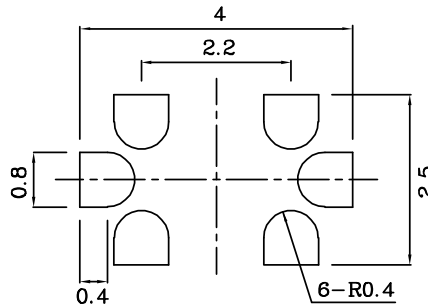
Reflow Soldering Profile For Lead-free SMT Process.



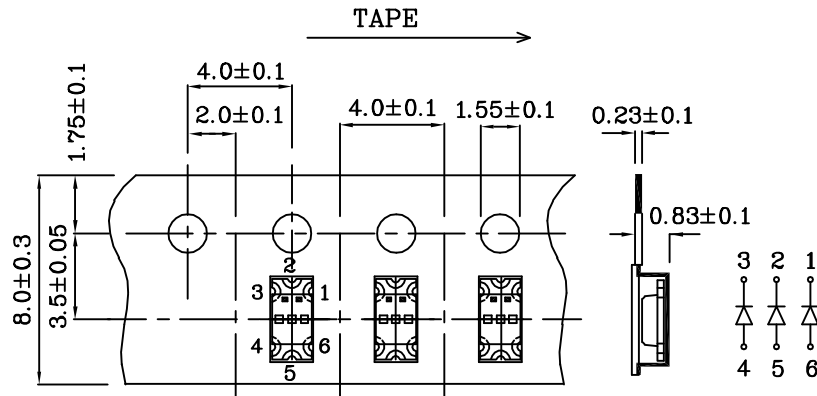
NOTES:

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.