

**Features**

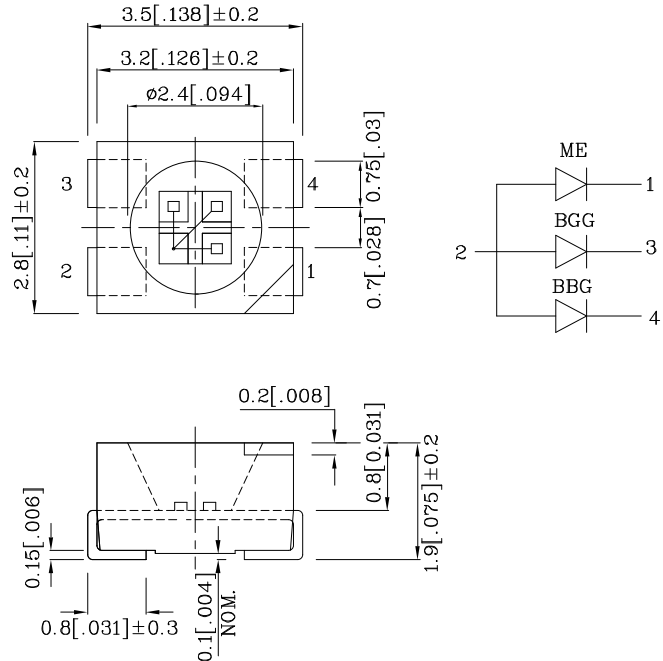
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE: 1500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.



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

**Notes:**

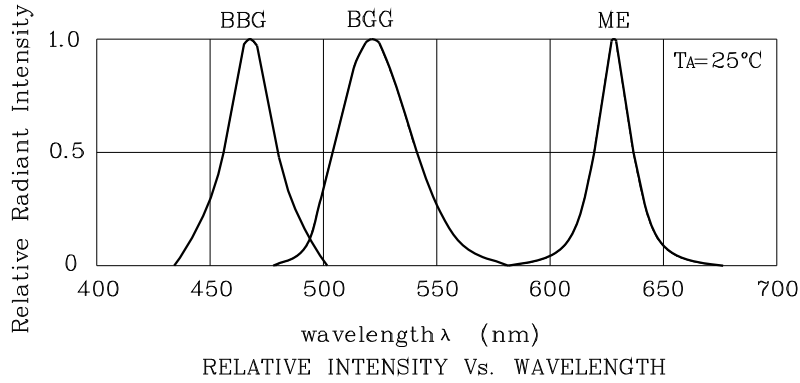
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$ " unless otherwise noted.
3. Specifications are subject to change without notice.



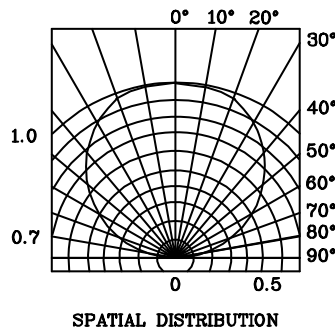
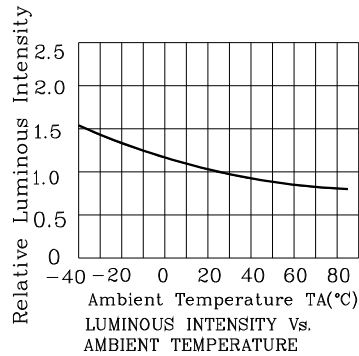
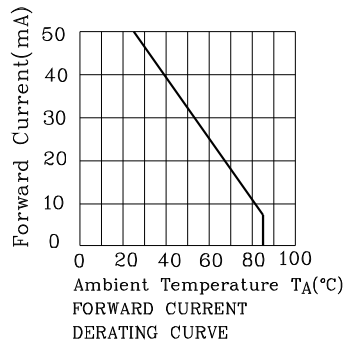
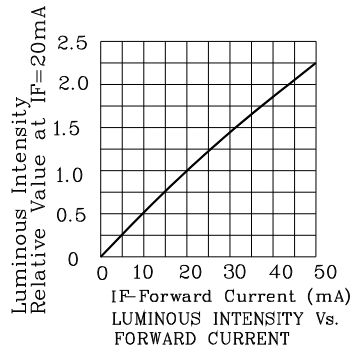
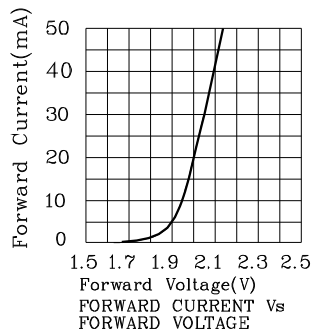
Absolute Maximum Ratings (TA=25°C)		ME (InGa AlP)	BGG (InGa N)	BBG (InGa N)	Unit
Reverse Voltage	V <sub>R</sub>	5	5	5	V
Forward Current	I <sub>F</sub>	50	30	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i <sub>FS</sub>	195	100	100	mA
Power Dissipation	P <sub>T</sub>	125	120	120	mW
Operating Temperature	T <sub>A</sub>	-40 ~ +85			°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85			
Electrostatic Diacharge Threshold (HBM)		-	1000	1000	V

Operating Characteristics (TA=25°C)		ME (InGa AlP)	BGG (InGa N)	BBG (InGa N)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	2.0	3.2	3.2	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	2.5	4	4	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 P	630	520	468	nm
Wavelength of Dominant Emission (Typ.) (I <sub>F</sub> =20mA)	λ D	621	525	470	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	20	35	21	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	C	25	100	100	pF

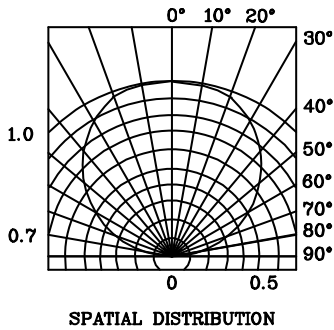
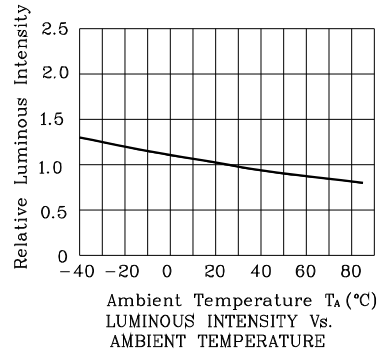
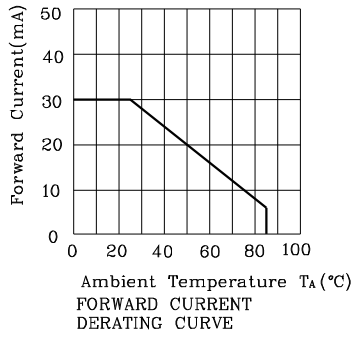
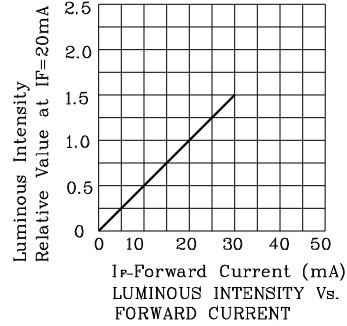
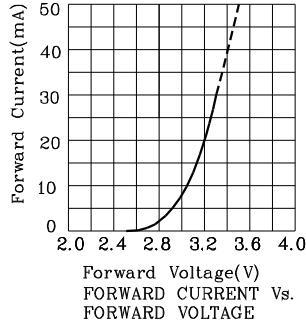
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I <sub>F</sub> =20mA) mcd		Wavelength nm λ P	Viewing Angle 2 θ 1/2
				min.	typ.		
ZMEBGGBBG45W	Red	InGaAlP	Water Clear	280	397	630	120°
	Green	InGaN		280	497	520	
	Blue	InGaN		70	198	468	



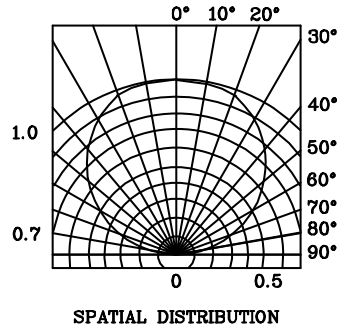
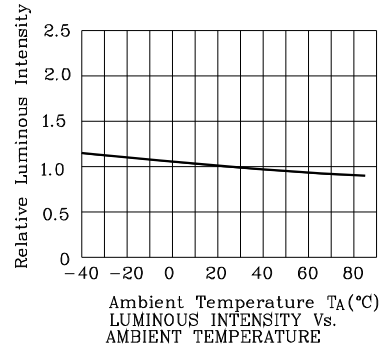
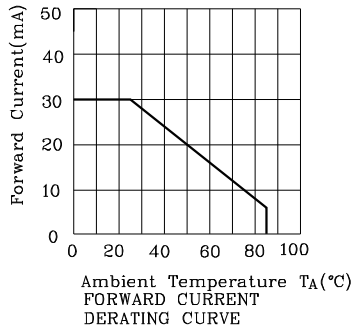
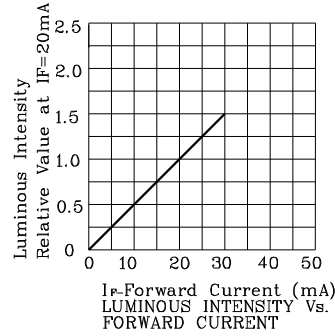
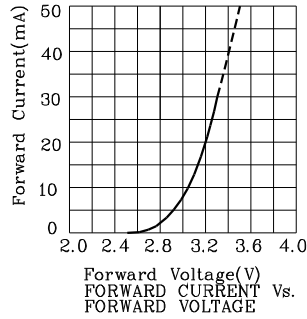
◆ ME



❖ BGG



❖ **BBG**



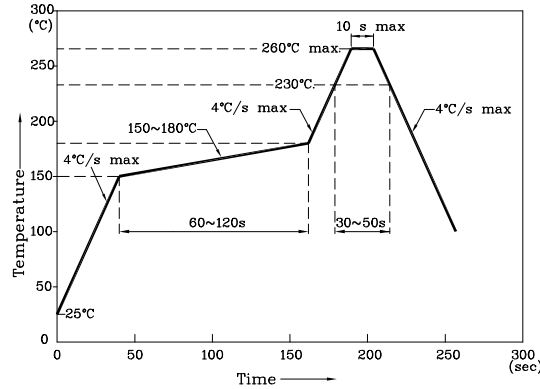
Remarks:

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.

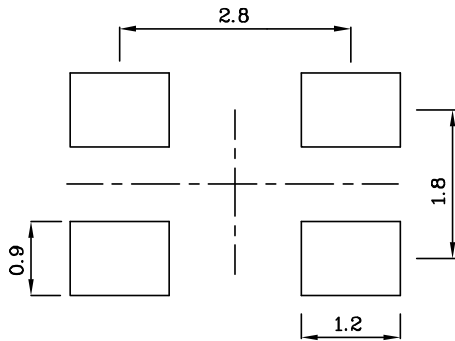
Reflow Soldering Profile For Lead-free SMT Process.



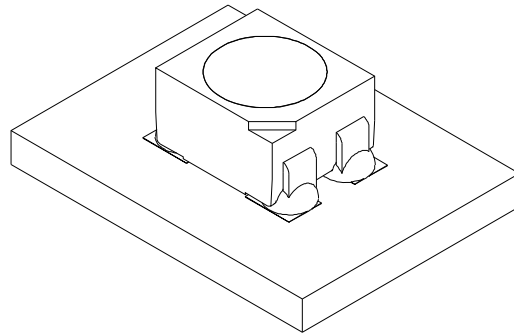
NOTES:

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.

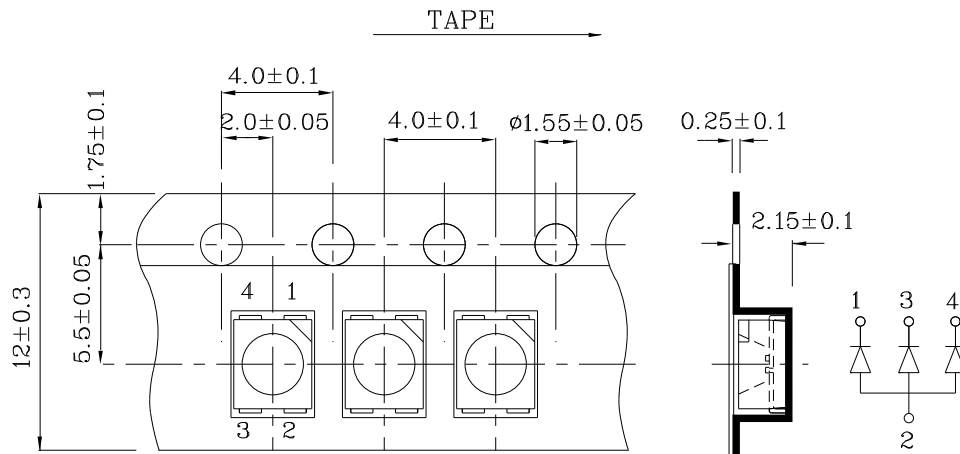
❖ Recommended Soldering Pattern  
(Units : mm; Tolerance: ±0.1)



❖ The device has a single mounting surface. The device must be mounted according to the specifications.



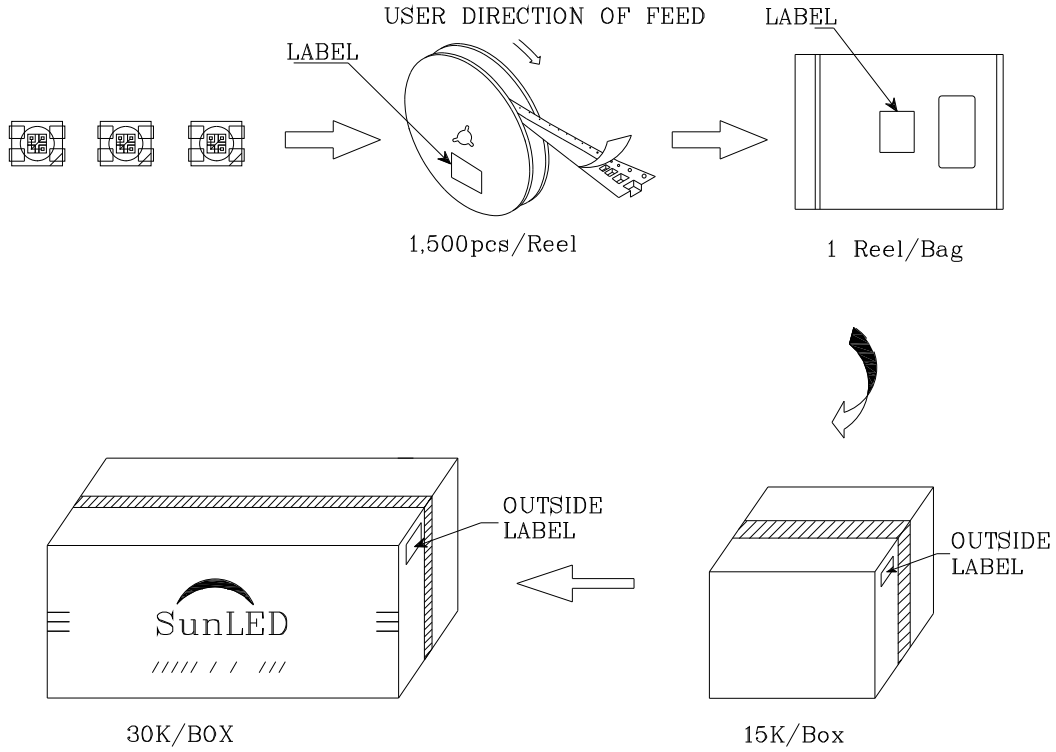
❖ Tape Specification (Units : mm)


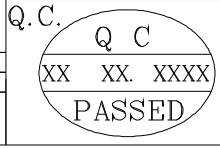






**PACKING & LABEL SPECIFICATIONS**

**ZMEBGGBBG45W**



		
P/NO : Zxxx45x		
QTY : 1,500 pcs	CODE: XXX	
S/N : XX		
LOT NO :		
 XXXXXXXXXXXXXXXXXXXXXXXXXX		
RoHS Compliant		