

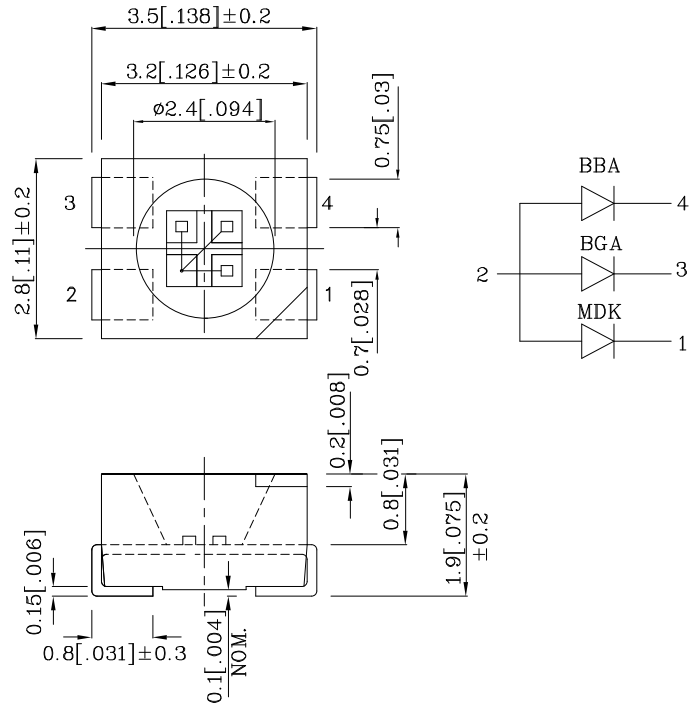
PRELIMINARY SPEC

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



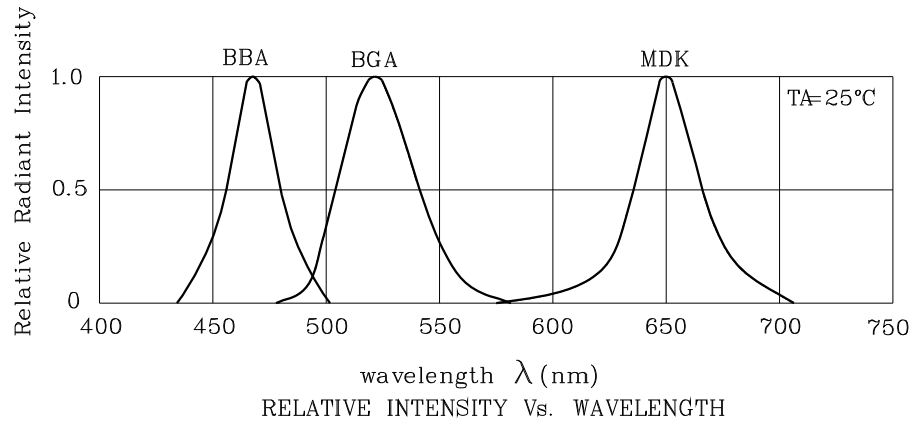
Notes:

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.

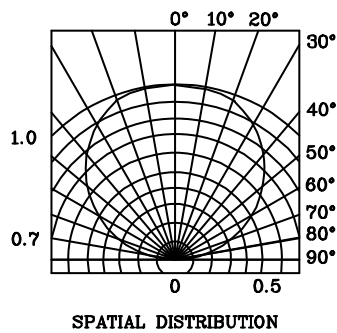
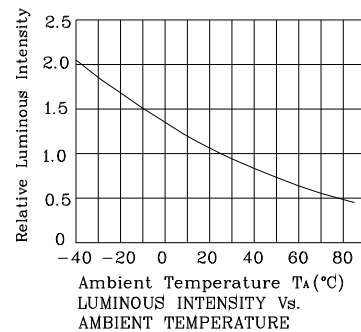
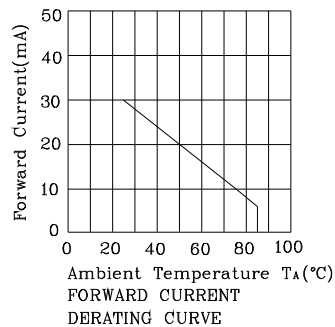
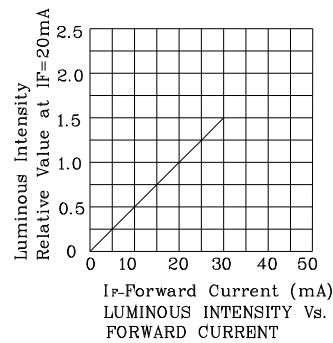
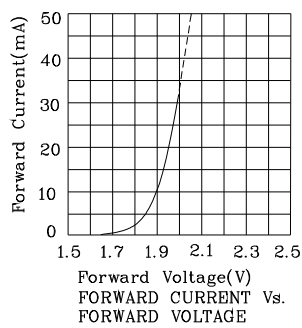
Absolute Maximum Ratings ($T_A=25^\circ\text{C}$)		MDK (InGa AlP)	BGA (InGa N)	BBA (InGa N)	Unit
Reverse Voltage	V_R	5	5	5	V
Forward Current	I_F	30	30	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	185	100	100	mA
Power Dissipation	P_T	75	120	120	mW
Electrostatic Discharge Threshold (HBM)	-	1000	1000	-	V
Operating Temperature	T_A	-40 ~ +85			°C
Storage Temperature	T_{stg}	-40 ~ +85			

Operating Characteristics ($T_A=25^\circ\text{C}$)		MDK (InGa AlP)	BGA (InGa N)	BBA (InGa N)	Unit
Forward Voltage (Typ.) ($I_F=20\text{mA}$)	V_F	1.95	3.2	3.2	V
Forward Voltage (Max.) ($I_F=20\text{mA}$)	V_F	2.5	4.0	4.0	V
Reverse Current (Max.) ($V_R=5\text{V}$)	I_R	10	10	10	μA
Wavelength Of Peak Emission (Typ.) ($I_F=20\text{mA}$)	λ_P	650	520	468	nm
Wavelength Of Dominant Emission (Typ.) ($I_F=20\text{mA}$)	λ_D	635	525	470	nm
Spectral Line Full Width At Half-Maximum (Typ.) ($I_F=20\text{mA}$)	$\Delta\lambda$	28	35	21	nm
Capacitance (Typ.) ($V_F=0\text{V}$, $f=1\text{MHz}$)	C	35	100	100	pF

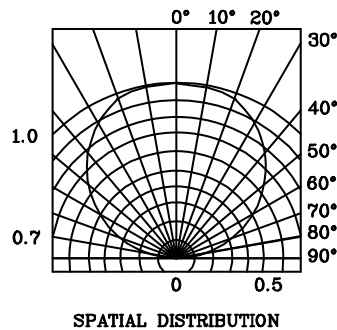
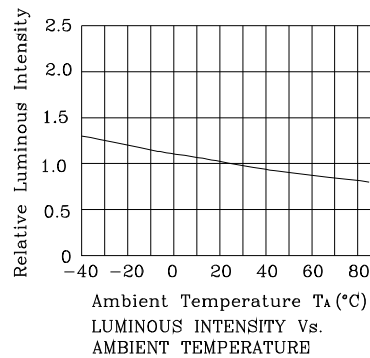
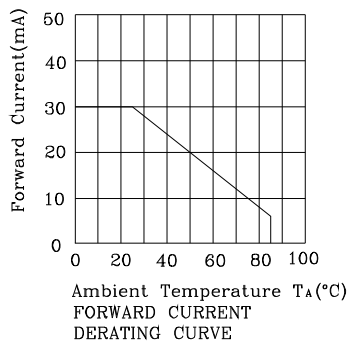
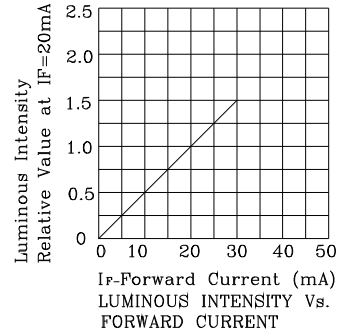
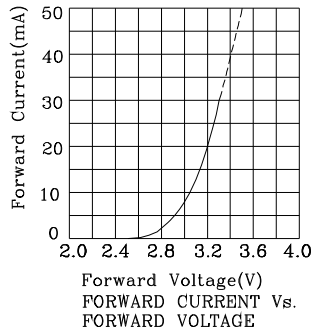
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity ($I_F=20\text{mA}$) mcd		Wavelength nm λ_P	Viewing Angle 2θ 1/2
				min.	typ.		
XZMDKKBGABBA45W	Red	InGaAlP	Water Clear	70	198	650	120°
	Green	InGaN		70	198	520	
	Blue	InGaN		36	69	468	



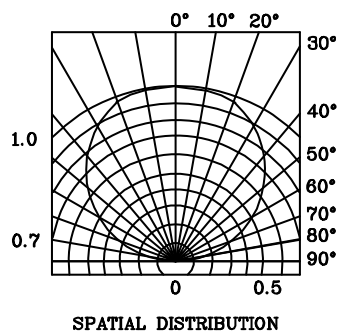
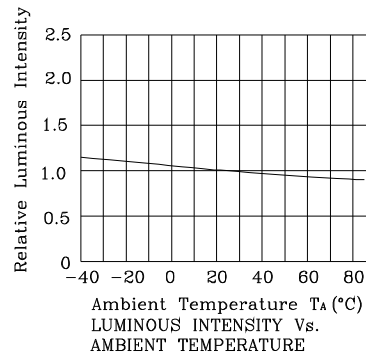
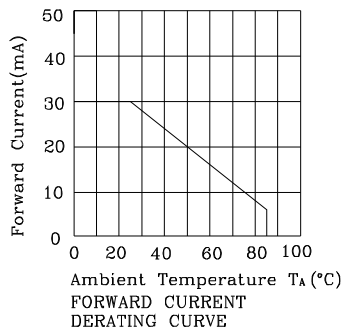
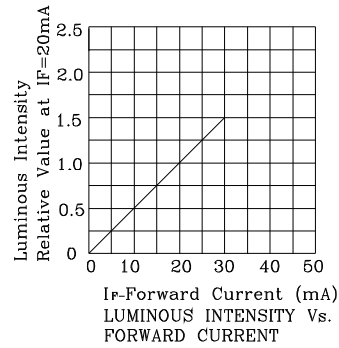
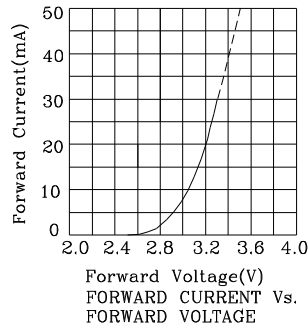
❖ MDK



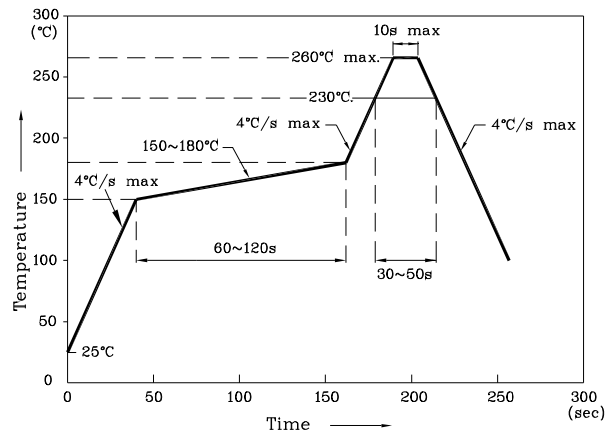
❖ BGA



❖ BBA



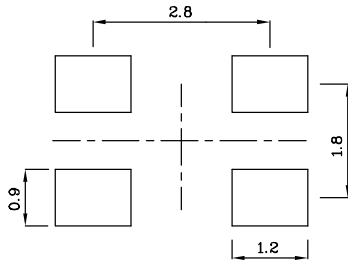
Reflow Soldering Profile For Lead-free SMT Process.



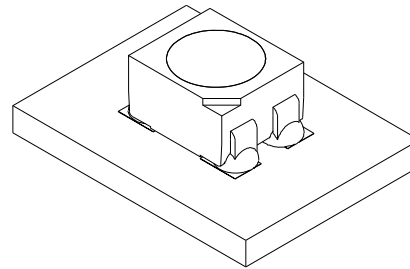
Notes:

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.

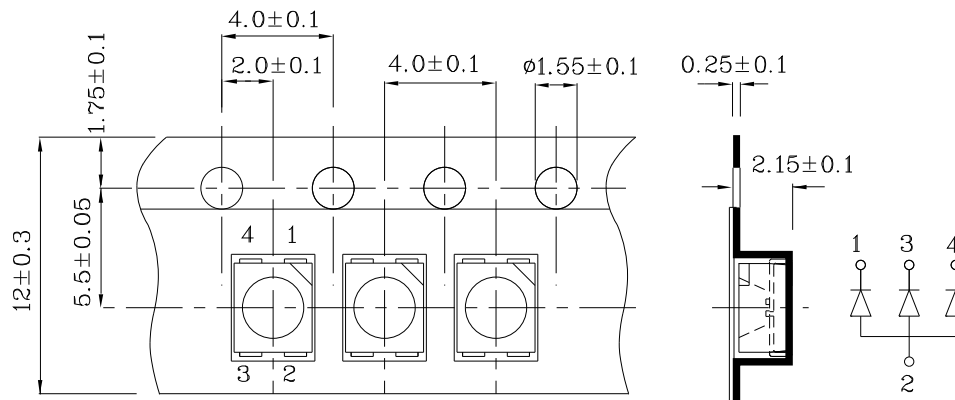
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



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



❖ Tape Specification (Units : mm)



Remarks:

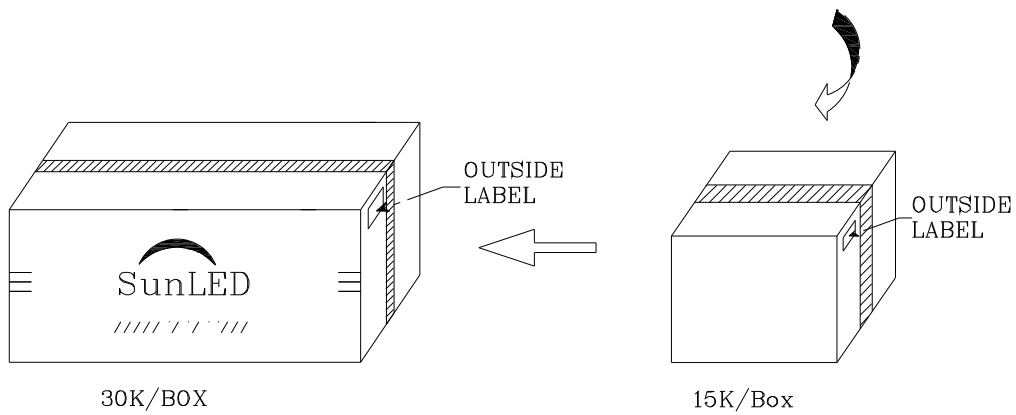
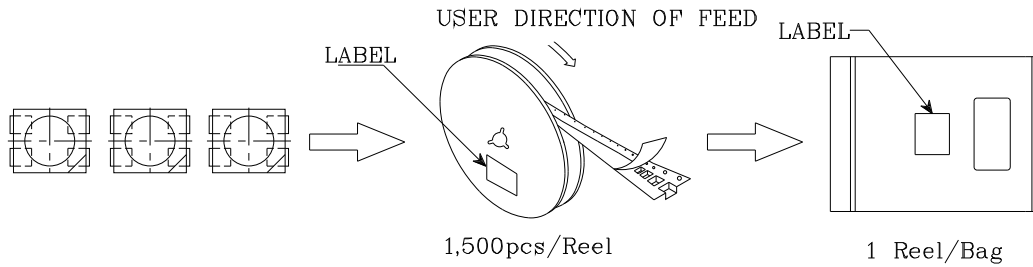
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity/ luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous intensity/ luminous flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS

XZMDKGBABBA45W



P/NO : XZxxx45x	FQC
QTY : 1,500 pcs	CODE: XXX
S/N : XX	
LOT NO :	
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	