

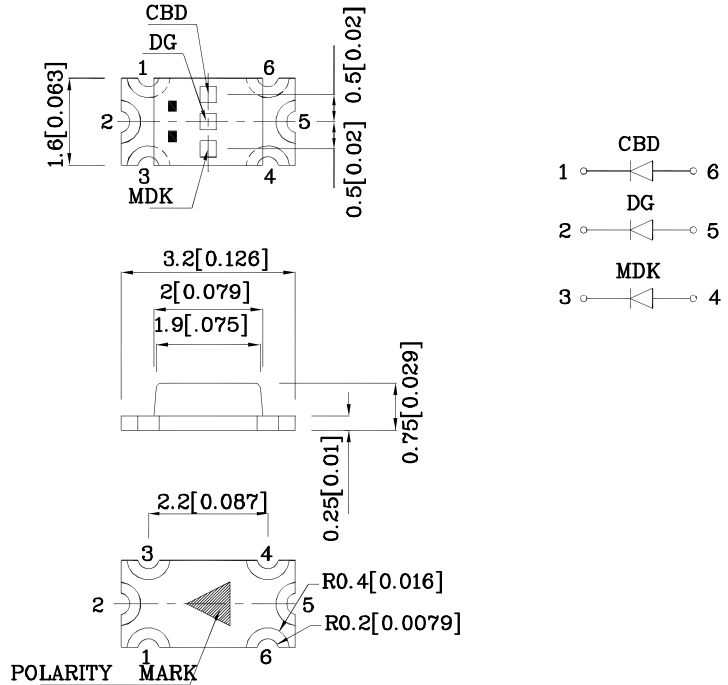
PRELIMINARY SPEC

Features

- 3.2mmx1.6mm SMT LED, 0.75mm thickness.
- Low power consumption..
- 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



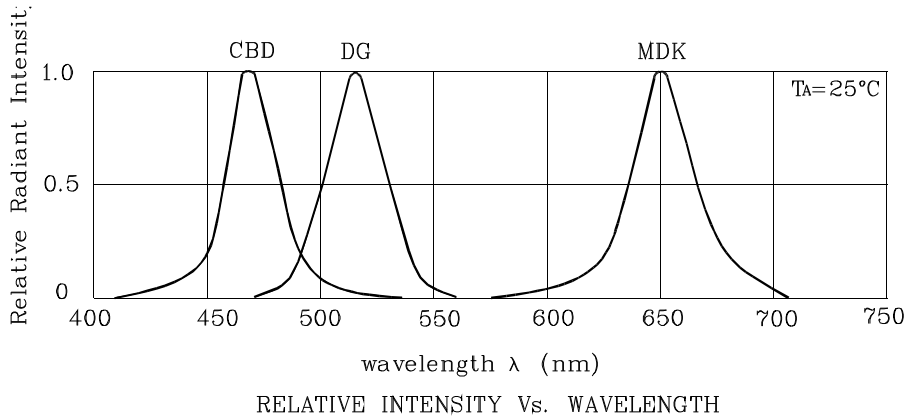
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2(0.008)$  unless otherwise noted.
3. Specifications are subject to change without notice.

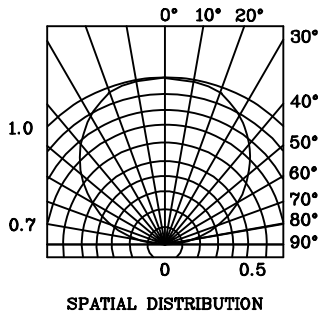
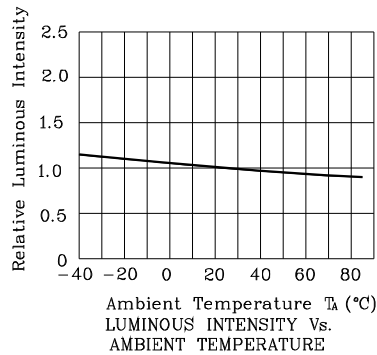
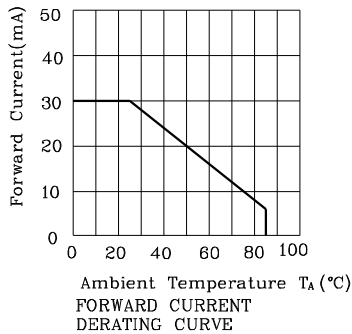
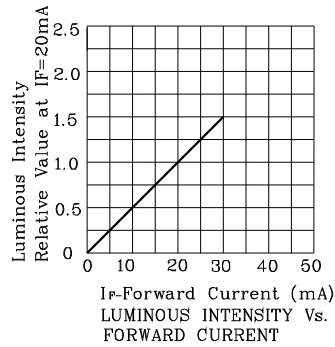
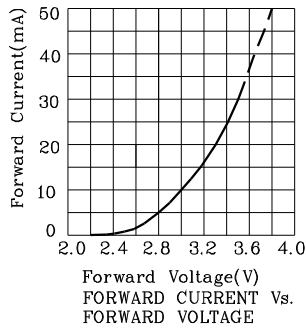
Operating Characteristics (T <sub>A</sub> =25°C)		CBD (InGaN)	DG (InGa N)	MDK (AlGa InP)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	3.3	3.3	1.95	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	V <sub>F</sub>	4.0	4.1	2.5	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	I <sub>R</sub>	10	10	10	uA
Wavelength of Peak Emission (Typ.) (I <sub>F</sub> =20mA)	λ P	468	515	650	nm
Wavelength of Dominant Emission (Typ.) (I <sub>F</sub> =20mA)	λ D	470	525	630	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	25	30	28	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	C	100	45	35	pF

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		CBD (InGaN)	DG (InGa N)	MDK (AlGa InP)	Unit
Reverse Voltage	V <sub>R</sub>	5	5	5	V
Forward Current	I <sub>F</sub>	30	25	30	mA
Forward Current (Peak) 1/10Duty Cycle 0.1ms Pulse Width	i <sub>FS</sub>	150	150	185	mA
Power Dissipation	P <sub>D</sub>	120	102.5	75	mW
Operating Temperature	T <sub>A</sub>	-40 ~ +85			°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85			

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.		
XZCBDDGMDK55W-6	Blue	InGaN	Water Clear	36	89	468	120°
	Green	InGaN		70	178	515	
	Red	AlGaInP		70	218	650	

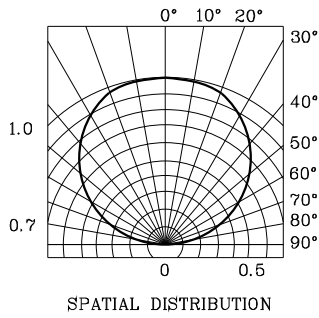
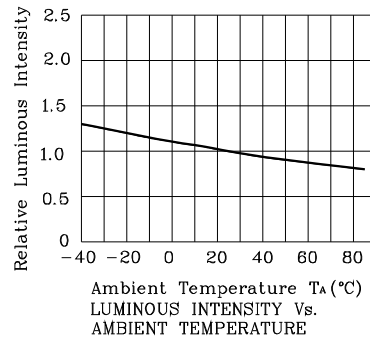
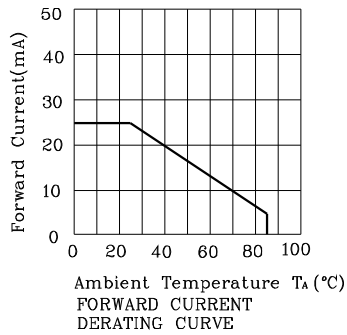
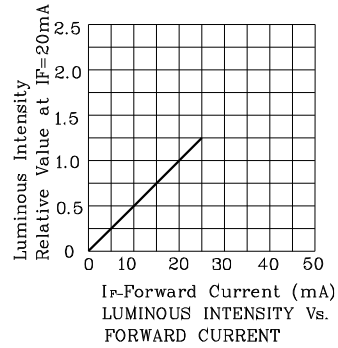
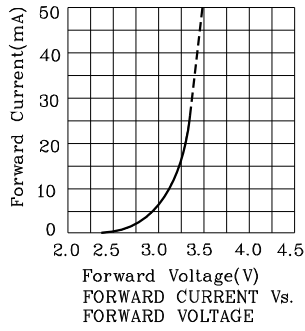


❖ CBD



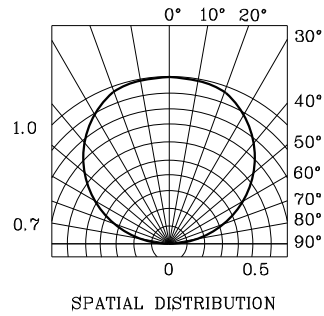
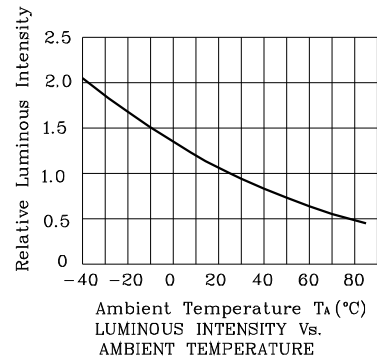
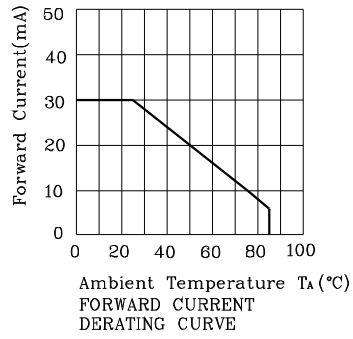
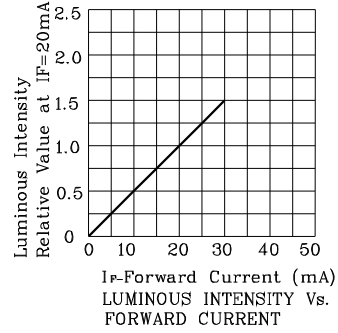
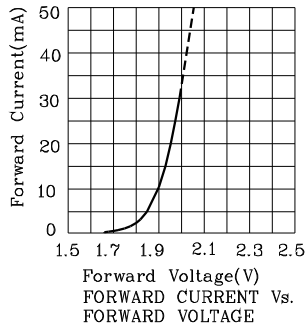


❖ DG





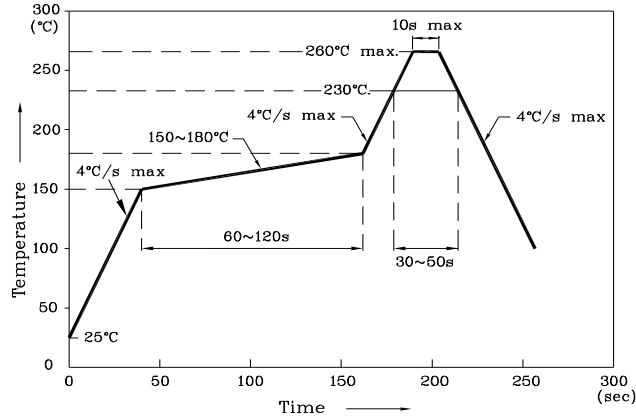
❖ MDK





**Reflow soldering is recommended and the soldering profile is shown below.**  
**Other soldering methods are not recommended as they might cause damage to the product.**

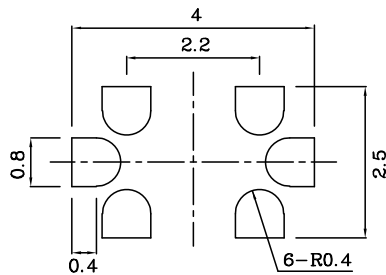
Reflow Soldering Profile For Lead-free SMT Process.



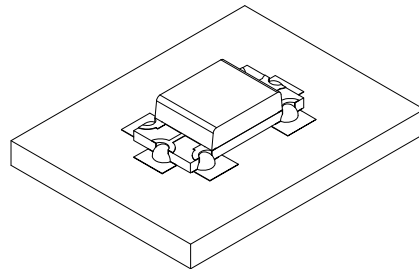
Notes:

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.

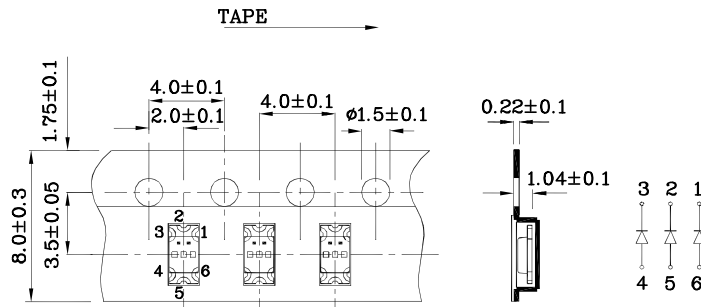
❖ **Recommended Soldering Pattern**  
(Units : mm; Tolerance: ± 0.1)



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



❖ **Tape Specification (Units : mm)**



Remarks:

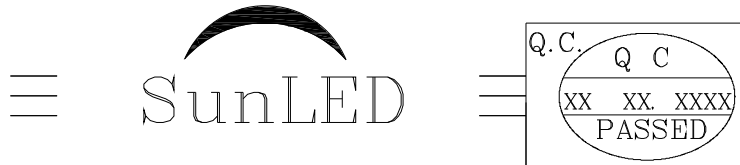
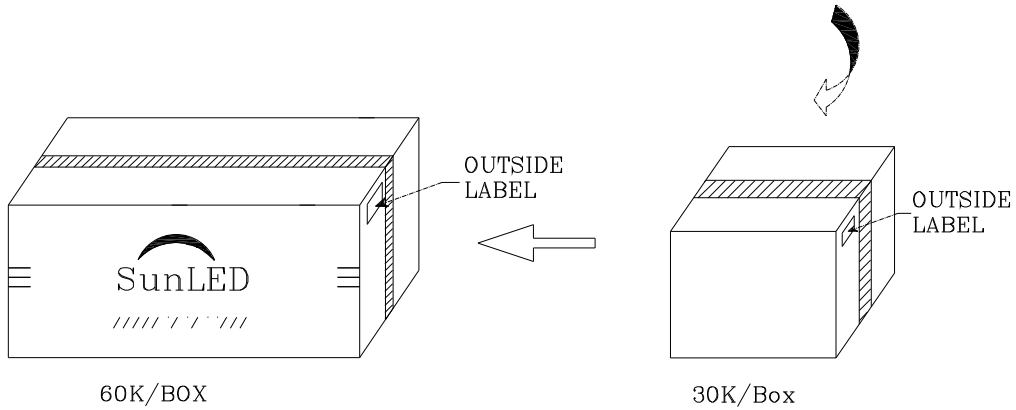
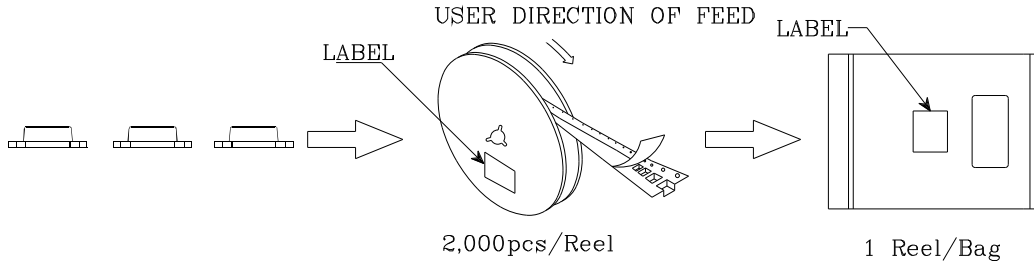
If special sorting is required (e.g. binning based on forward voltage, luminous intensity/ luminous flux or wavelength), the typical accuracy of the sorting process is as follows:


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**

**XZCBDDGMDK55W-6**



P/NO : XZxx55x-6	
QTY : 2,000 pcs	CODE: XXX
S/N : XX	
LOT NO :	
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	