

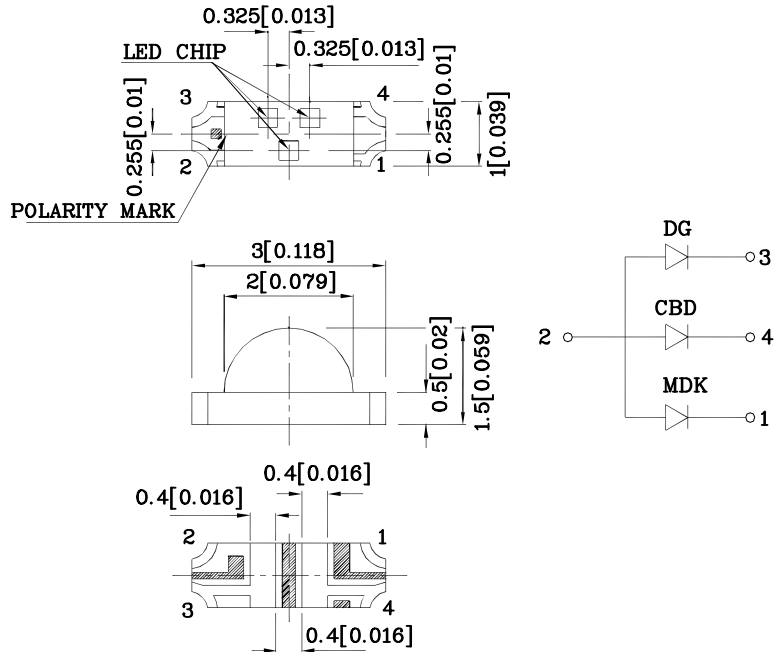
**Features**

- Ideal for indication light on hand held products
- Long life and robust package
- Variety of lens types and color choices available
- Package : 2000 pcs / reel
- Moisture sensitivity level : level 3
- RoHS compliant



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

**Package Schematics**



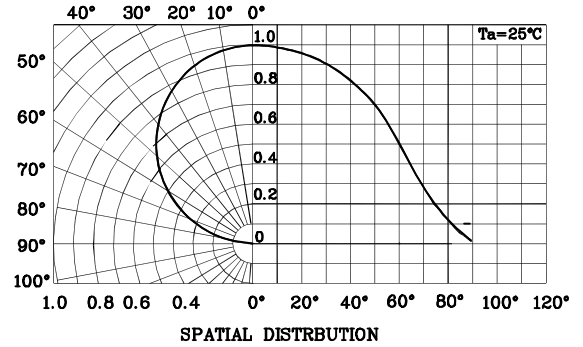
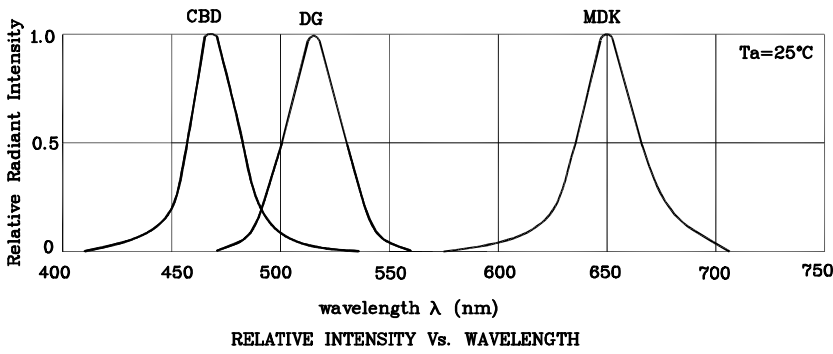
Notes:

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.

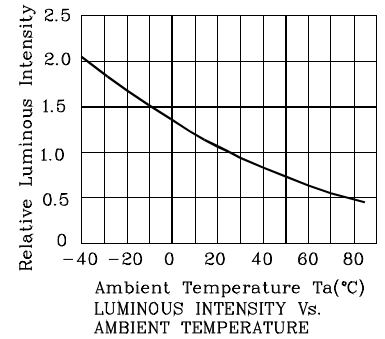
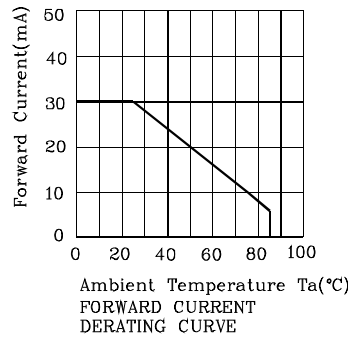
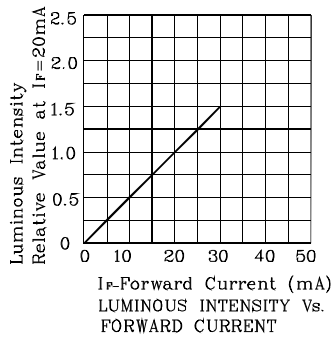
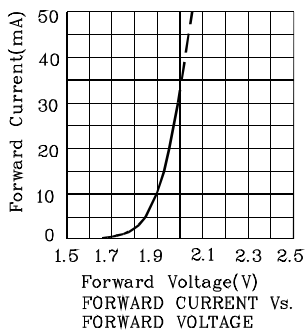
Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ )		MDK (AlGaInP)	CBD (InGaN)	DG (InGaN)	Unit
Reverse Voltage	$V_R$	5	5	5	V
Forward Current	$I_F$	30	30	25	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{FS}$	185	150	150	mA
Power Dissipation	$P_D$	75	120	102.5	mW
Electrostatic Discharge Threshold (HBM)		-	250	450	V
Operating Temperature	$T_A$	-40 ~ +85			$^\circ\text{C}$
Storage Temperature	$T_{stg}$				

Operating Characteristics ( $T_A=25^\circ\text{C}$ )		MDK (AlGaInP)	CBD (InGaN)	DG (InGaN)	Unit
Forward Voltage (Typ.) ( $I_F=20\text{mA}$ )	$V_F$	1.95	3.3	3.3	V
Forward Voltage (Max.) ( $I_F=20\text{mA}$ )	$V_F$	2.5	4	4.1	V
Reverse Current (Max.) ( $V_R=5\text{V}$ )	$I_R$	10	50	50	$\mu\text{A}$
Wavelength of Peak Emission (Typ.) ( $I_F=20\text{mA}$ )	$\lambda_P$	650	468	515	nm
Wavelength of Dominant Emission (Typ.) ( $I_F=20\text{mA}$ )	$\lambda_D$	630	470	525	nm
Spectral Line Full Width At Half-Maximum (Typ.) ( $I_F=20\text{mA}$ )	$\Delta\lambda$	28	25	30	nm
Capacitance (Typ.) ( $V_F=0\text{V}$ , $f=1\text{MHz}$ )	C	35	100	45	pF

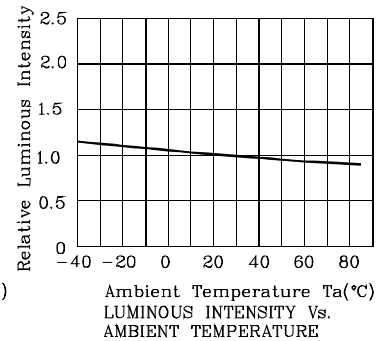
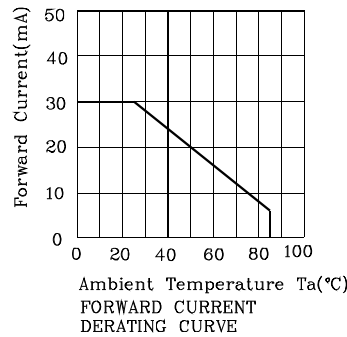
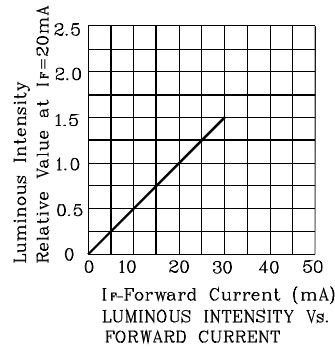
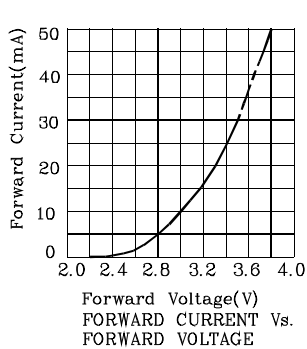
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity ( $I_F=20\text{mA}$ ) mcd		Wavelength nm $\lambda_P$	Viewing Angle $2\theta$ 1/2
				min.	typ.		
XZMDKCBDDG56WT	Red	AlGaInP	Water Clear	120	218	650	120°
	Blue	InGaN		50	98	468	
	Green	InGaN		200	397	515	



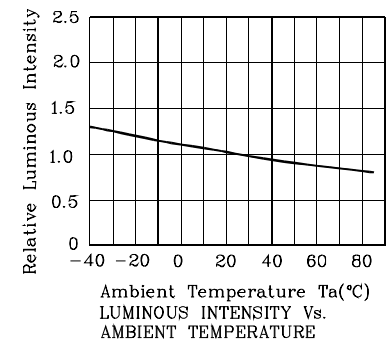
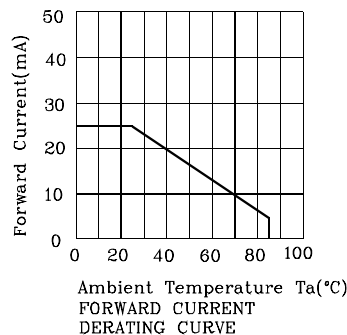
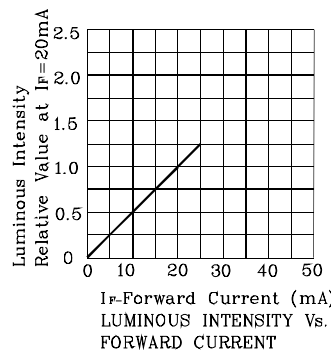
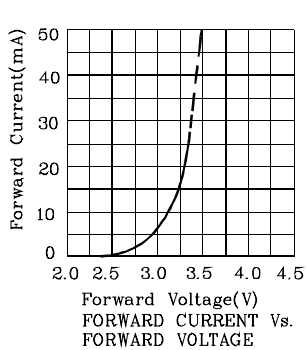
❖ MDK



❖ CBD



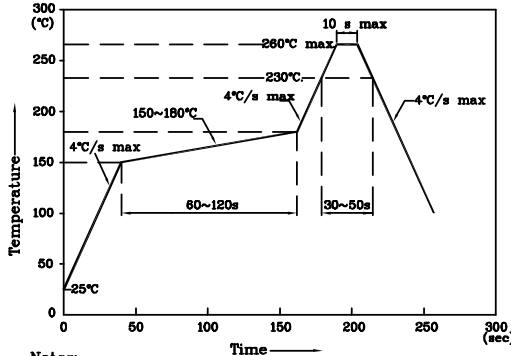
❖ DG



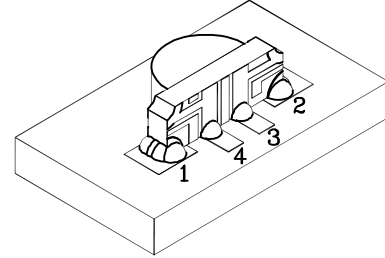
LED is recommended for reflow soldering and soldering profile is shown below.

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

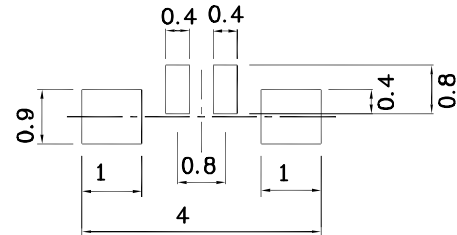
Reflow Soldering Profile for SMD Products (Pb-Free Components)



- 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

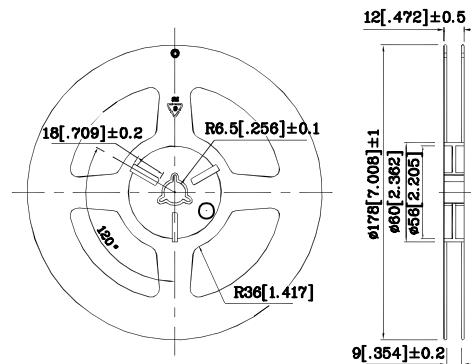
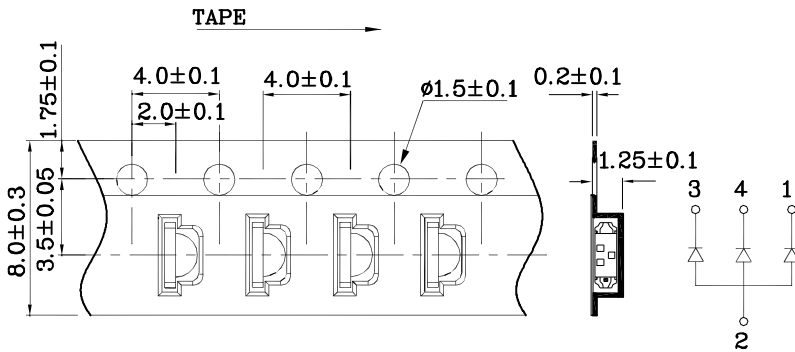


❖ Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



❖ Tape Specification (Units : mm)

❖ Reel Dimension



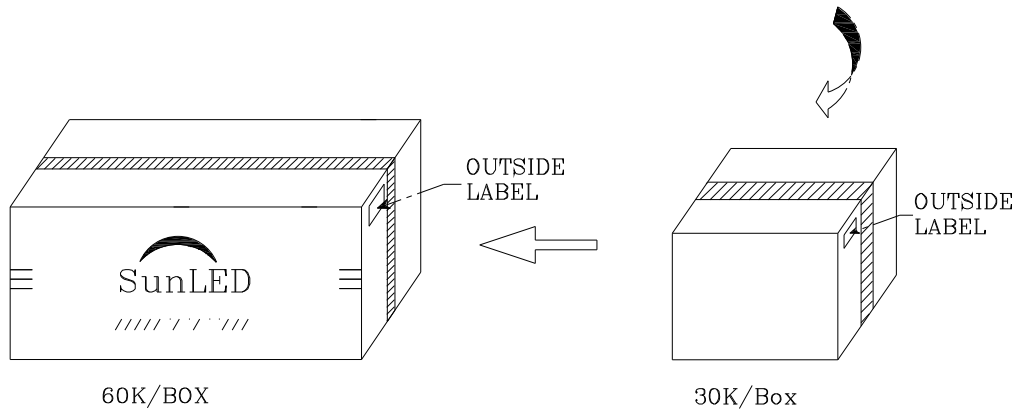
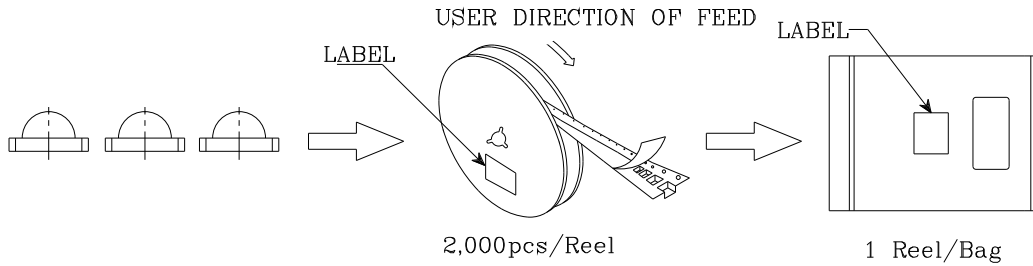

Remarks:

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**

Q.C. Q C  
XX XX XXXX  
PASSED

P/NO : XZxx56x	
QTY : 2,000 pcs	CODE: XXX
S/N : XX	
LOT NO :	
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	