SunLED
www.SunLEDusa.com

Part Number: XZDGK53W-6

1.6X0.8mm SMD CHIP LED LAMP (0.25mm Height)

Features

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- RoHS compliant

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

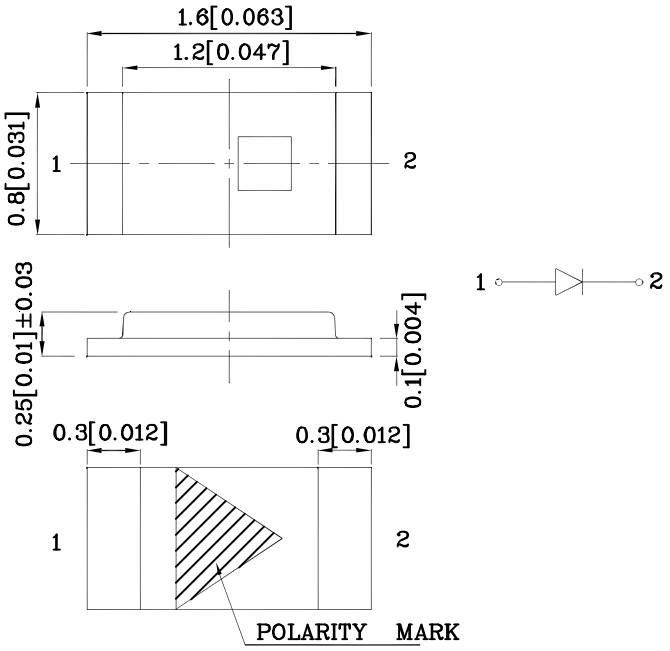
Applications

1.Mobile phone Keypad indicator and backlight

2.Flat backlight for LCD, switch and symbol

3.Toys

Package Schematics



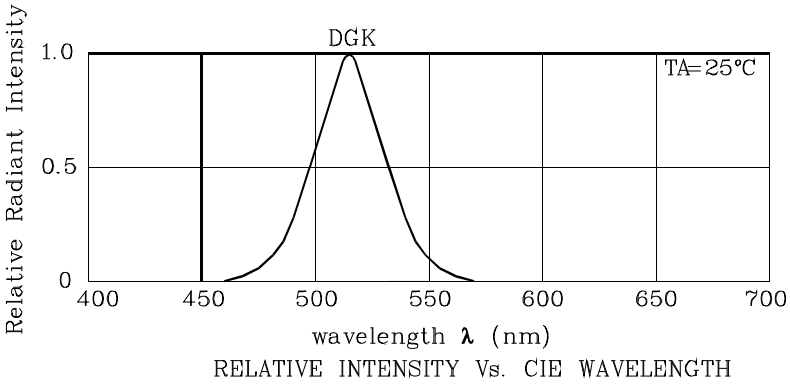
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.1(0.004") unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T_A=25°C)		**DGK (InGaN)**	**Unit**
Reverse Voltage	V_R	5	V
Forward Current	I_F	25	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	150	mA
Power Dissipation	P_D	102.5	mW
Operating Temperature	T_A	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	
Electrostatic Discharge Threshold (HBM)		450	V

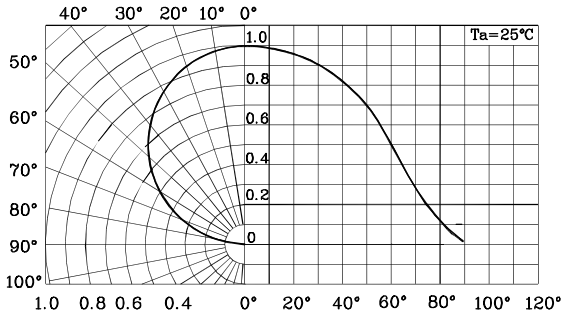
Operating Characteristics (T_A=25°C)		**DGK (InGaN)**	**Unit**
Forward Voltage (Typ.) (I_F=20mA)	V_F	3.3	V
Forward Voltage (Max.) (I_F=20mA)	V_F	4.1	V
Reverse Current (Max.) (V_R=5V)	I_R	50	uA
Wavelength of Peak Emission CIE127-2007*(Typ.) (I_F=20mA)	λP	515*	nm
Wavelength of Dominant Emission CIE127-2007*(Typ.) (I_F=20mA)	λD	525*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=20mA)	△λ	35	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	45	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I_F=20mA) mcd		Wavelength CIE127-2007* nm λP	Viewing Angle 2θ 1/2
				min.	typ.		
XZDGK53W-6	Green	InGaN	Water Clear	200*	347*	515*	120°

*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

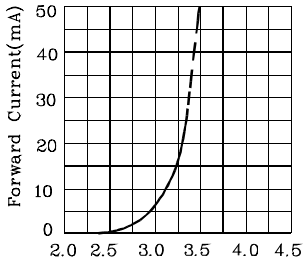


RELATIVE INTENSITY Vs. CIE WAVELENGTH

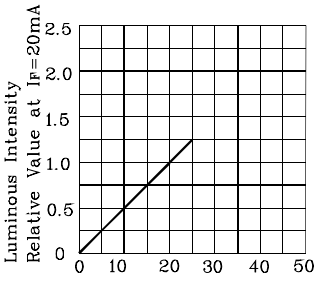


SPATIAL DISTRIBUTION

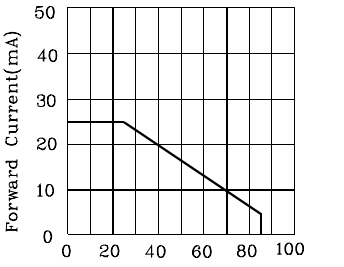
❖ DGK



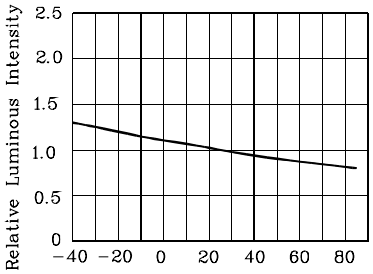
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



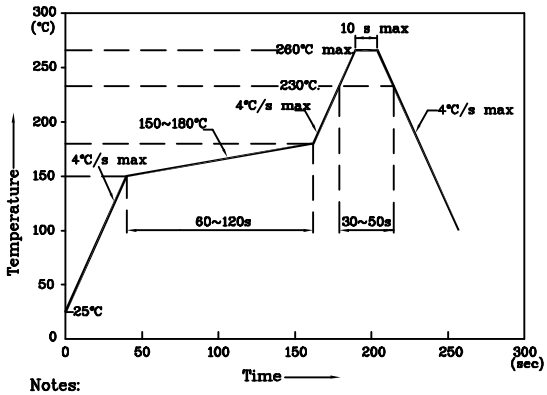
FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

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

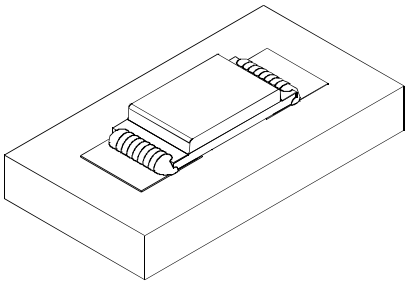
Reflow Soldering Profile for SMD Products (Pb−Free Components)



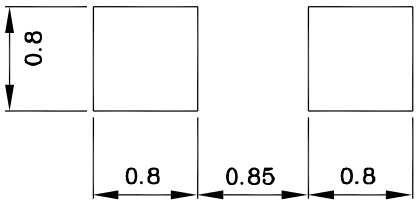
Notes:

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**

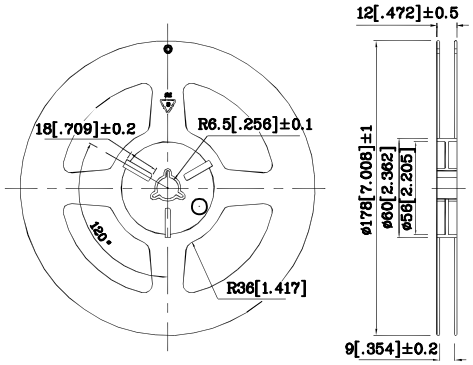
❖ **The device has a single mounting surface. The device must be mounted according to the specifications.**



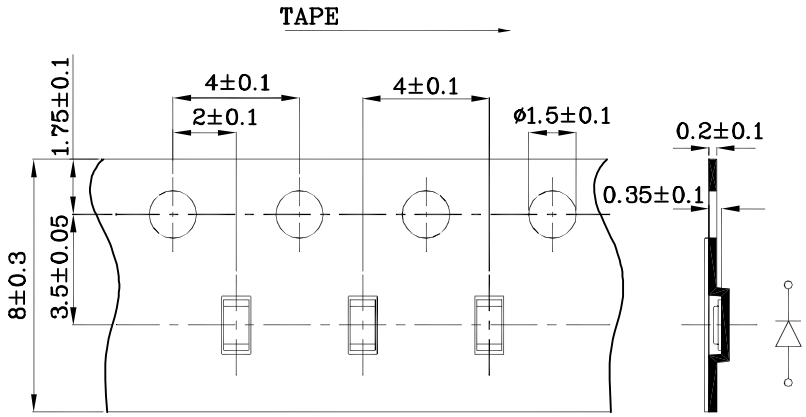
❖ **Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)**



❖ **Reel Dimension**



❖ **Tape Specification (Units : mm)**



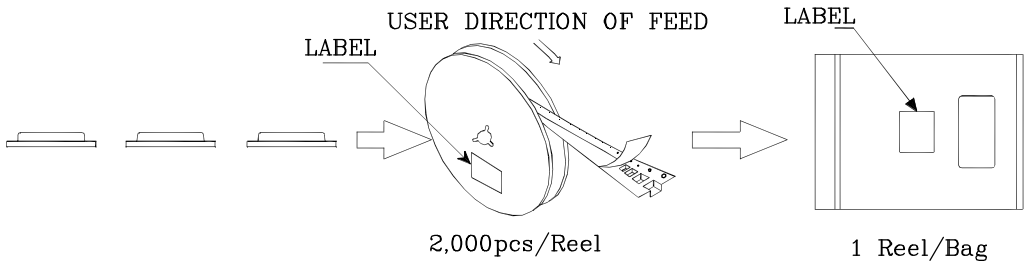
Remarks:

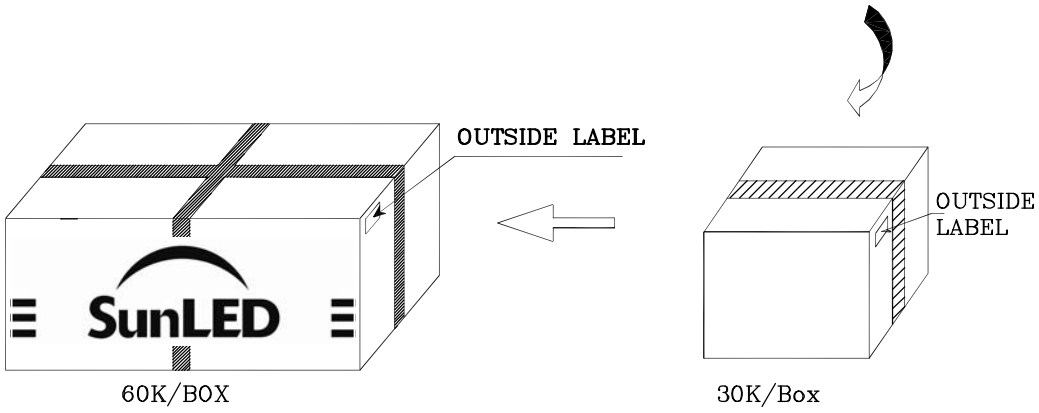
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

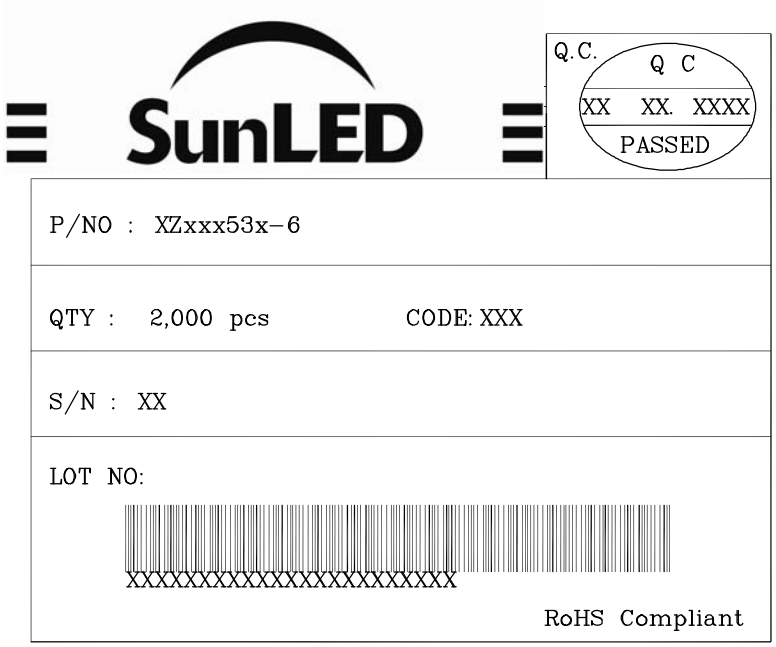
1. Wavelength: +/-1nm
2. Luminous intensity / luminous flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS







TERMS OF USE

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2. Contents within this document are subject to improvement and enhancement changes without notice.
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4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
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