

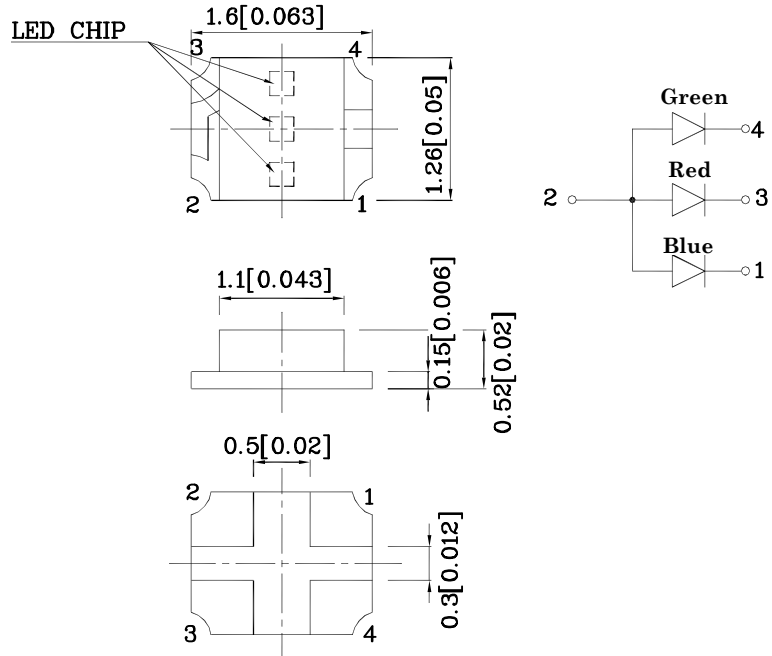
Features

- 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

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.

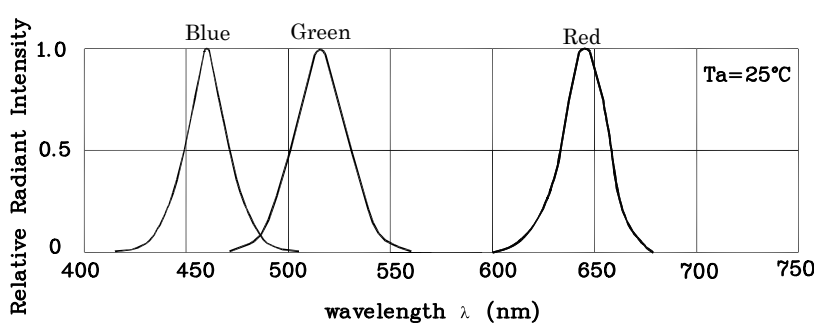
Absolute Maximum Ratings (T _A =25°C)		Blue (InGa N)	Red (AlGaIn P)	Green (InGa N)	Unit	Operating Characteristics (T _A =25°C)		Blue (InGa N)	Red (AlGaIn P)	Green (InGa N)	Unit
Reverse Voltage	V _R	5	5	5	V	Forward Voltage (Typ.) (I _F =20mA)	V _F	3.3	1.95	3.3	V
Forward Current	I _F	30	30	25	mA	Forward Voltage (Max.) (I _F =20mA)	V _F	4	2.5	4.1	V
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i _{FS}	150	185	150	mA	Reverse Current (Max.) (V _R =5V)	I _R	50	10	50	uA
Power Dissipation	P _D	120	75	102.5	mW	Wavelength of Peak Emission CIE127-2007* (Typ.) (I _F =20mA)	λ _P	460*	645*	515*	nm
Electrostatic Discharge Threshold (HBM)		250	3000	450	V	Wavelength of Dominant Emission CIE127-2007* (Typ.) (I _F =20mA)	λ _D	465*	630*	525*	nm
Operating Temperature	T _A	-40 ~ +85			°C	Spectral Line Full Width At Half-Maximum (Typ.) (I _F =20mA)	Δλ	25	28	30	nm
Storage Temperature	T _{stg}					Capacitance (Typ.) (V _F =0V, f=1MHz)	C	100	35	45	pF
Thermal resistance (Junction/ambient)	R _{th j-a}	490	300	380	°C/W						

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

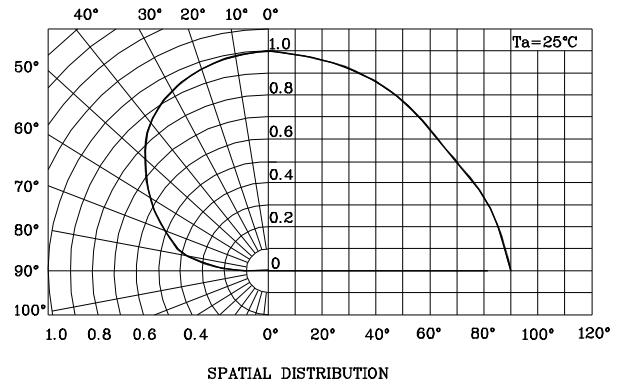
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I _F =20mA) mcd	Wavelength CIE127-2007* nm λ _P	Viewing Angle 2θ 1/2
XZCBDMDKDG62W-2	Blue	InGaN	Water Clear	min. 40 typ. 40*	460*	140°
	Red	AlGaInP		min. 120 typ. 120*	645*	
	Green	InGaN		min. 120 typ. 120*	515*	

*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.
Sep 16, 2016

XDSA4425 V10-X Layout: Maggie L.

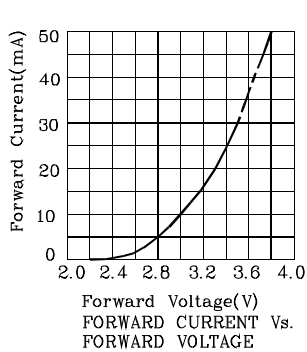


RELATIVE INTENSITY Vs. CIE WAVELENGTH

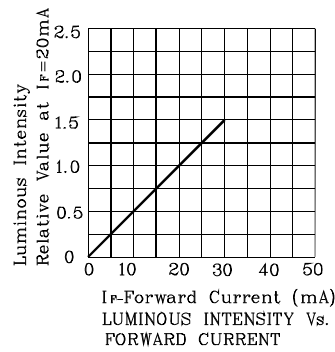


SPATIAL DISTRIBUTION

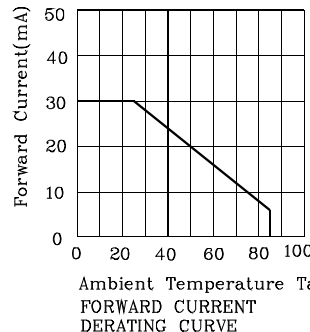
❖ Blue



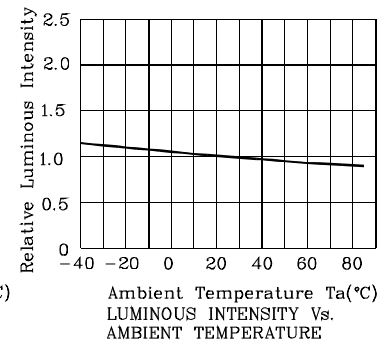
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

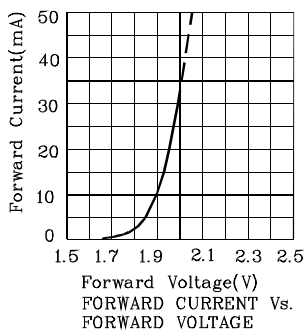


FORWARD CURRENT DERATING CURVE

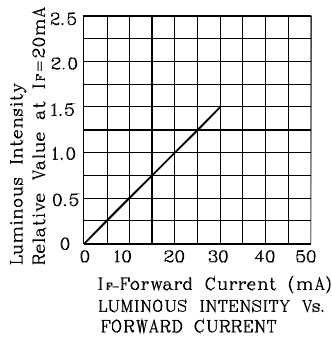


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

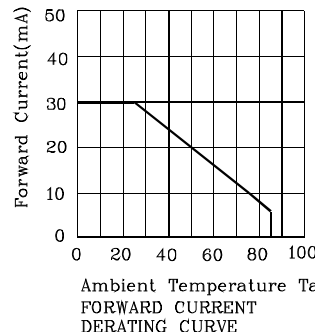
❖ Red



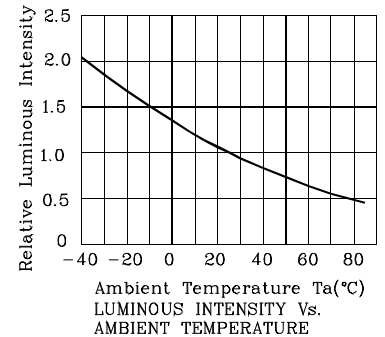
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

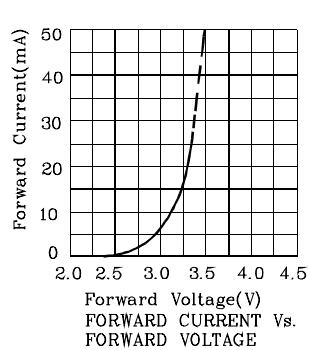


FORWARD CURRENT DERATING CURVE

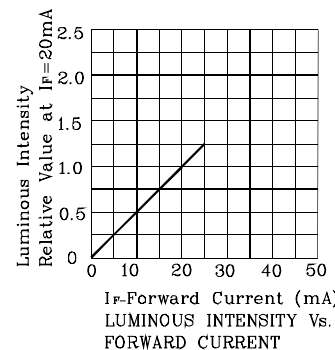


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

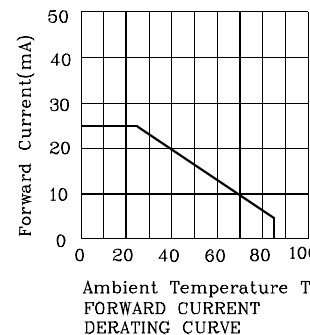
❖ Green



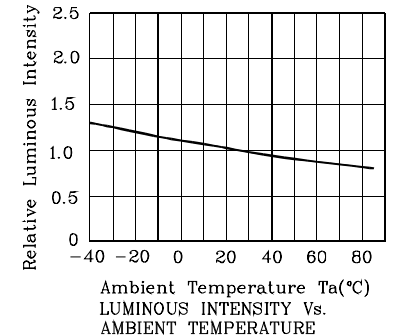
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE

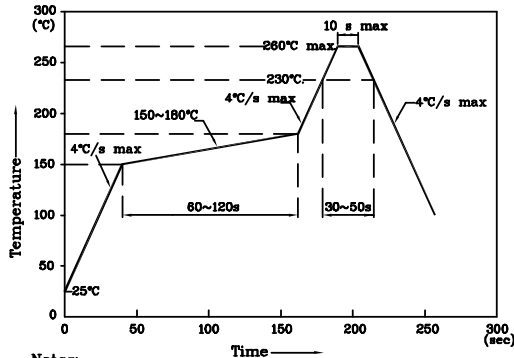


LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

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

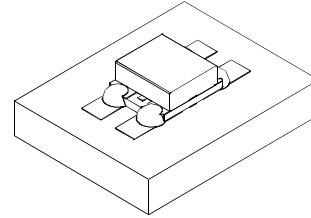
❖ The device has a single mounting surface.
The device must be mounted according to the specifications.

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

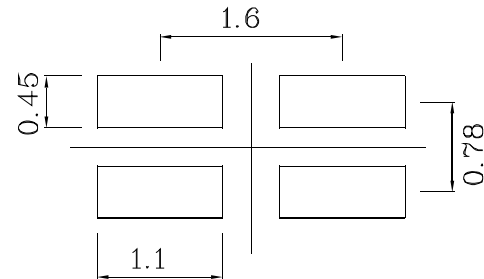


Notes:

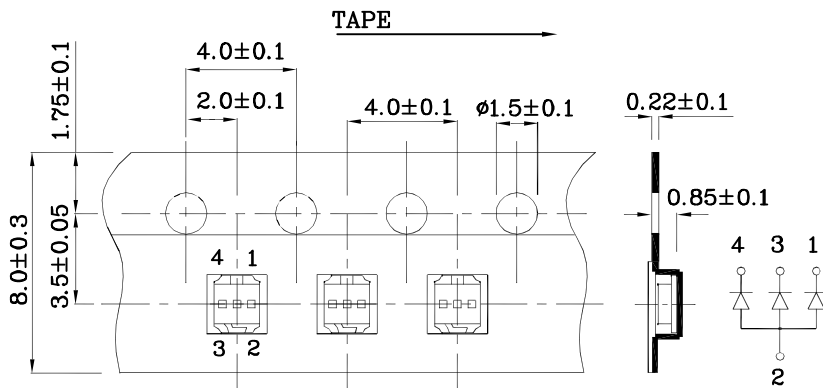
1. Maximum soldering temperature should not exceed 260°C
2. Recommended reflow temperature: 145°C-260°C
3. Do not put stress to the epoxy resin during high temperatures conditions



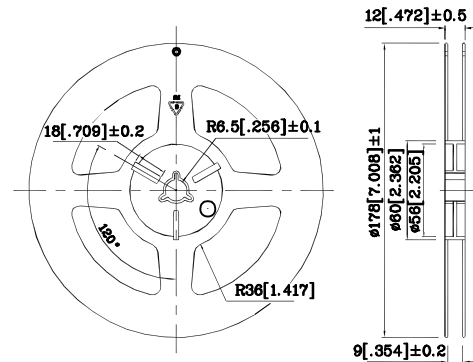
❖ Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.1)



❖ Tape Specification (Units : mm)



❖ Reel Dimension



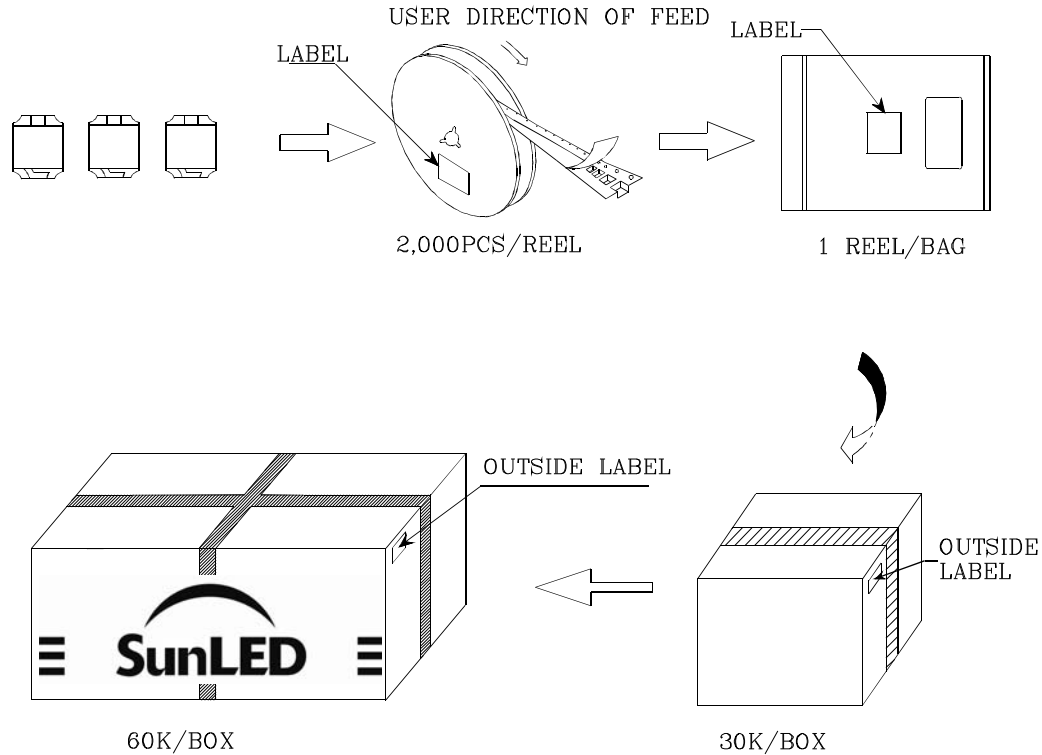
Remarks:

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: $\pm 1\text{nm}$
2. Luminous intensity / luminous flux: $\pm 15\%$
3. Forward Voltage: $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS



		Q.C. Q C XX XX XXXX PASSED
P/NO : XZxxx62x		
QTY : 2,000 pcs	CODE: XXX	
S/N : XX		
LOT NO : XXXXXXXXXXXXXXXXXXXXXXXX		
RoHS Compliant		

TERMS OF USE

1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
2. Contents within this document are subject to improvement and enhancement changes without notice.
3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet. User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
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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