

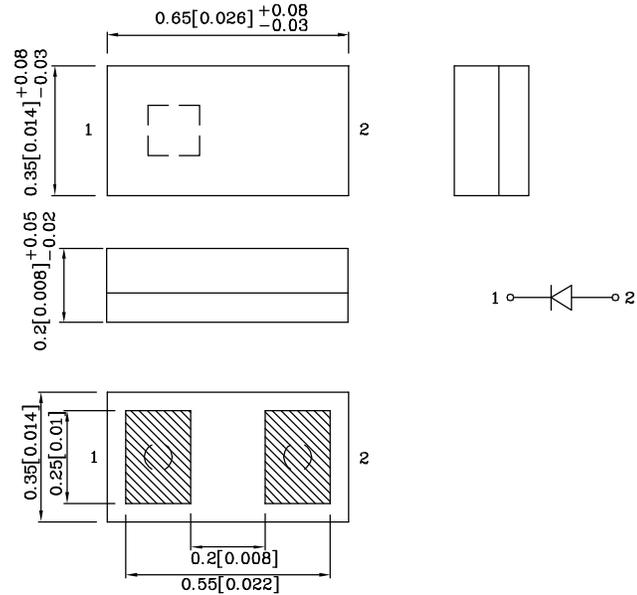
### Features

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 4,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 2
- Low current  $I_F=5\text{mA}$  operating.
- RoHS compliant



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

### Package Schematics



**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$  unless otherwise noted.
3. Specifications are subject to change without notice.

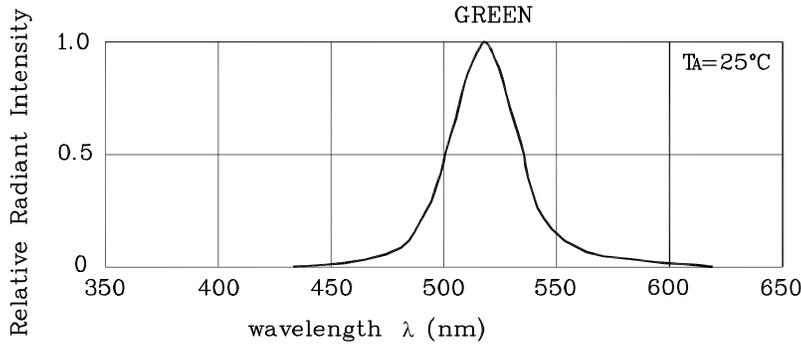
Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ )		Green (InGaN)	Unit
Reverse Voltage	$V_R$	5	V
Forward Current	$I_F$	10	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{FS}$	50	mA
Power Dissipation	$P_D$	34	mW
Electrostatic Discharge Threshold (HBM)		1000	V
Operating Temperature	$T_A$	-40 ~ +85	°C
Storage Temperature	$T_{stg}$	-40 ~ +85	

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)

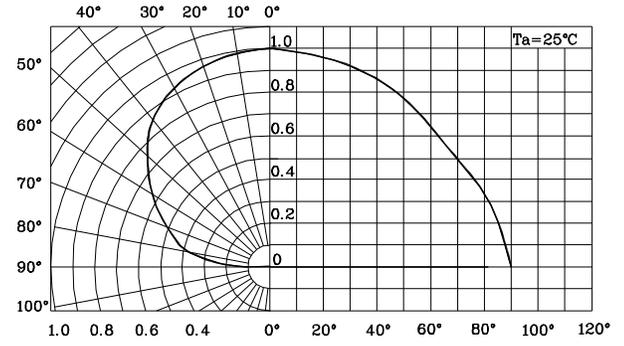
Operating Characteristics ( $T_A=25^\circ\text{C}$ )		Green (InGaN)	Unit
Forward Voltage (Typ.) ( $I_F=5\text{mA}$ )	$V_F$	3	V
Forward Voltage (Max.) ( $I_F=5\text{mA}$ )	$V_F$	3.2	V
Reverse Current (Max.) ( $V_R=5\text{V}$ )	$I_R$	50	$\mu\text{A}$
Wavelength of Peak Emission CIE127-2007* (Typ.) ( $I_F=5\text{mA}$ )	$\lambda_P$	518*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) ( $I_F=5\text{mA}$ )	$\lambda_D$	527*	nm
Spectral Line Full Width At Half-Maximum (Typ.) ( $I_F=5\text{mA}$ )	$\Delta\lambda$	35	nm

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* ( $I_F=5\text{mA}$ ) mcd		Wavelength CIE127-2007* nm $\lambda_P$	Viewing Angle 2 $\theta$ 1/2
				min.	typ.		
XZBGR155W5MAV	Green	InGaN	Water Clear	30*	79*	518*	140°

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

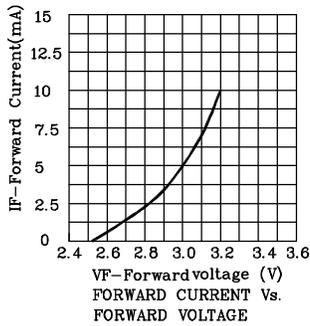


RELATIVE INTENSITY Vs. CIE WAVELENGTH

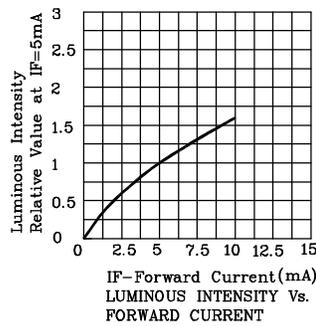


SPATIAL DISTRIBUTION

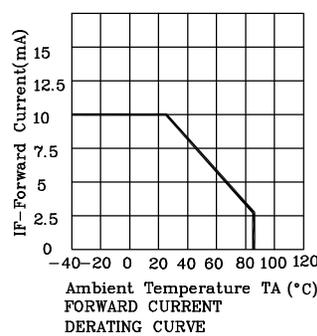
❖ Green



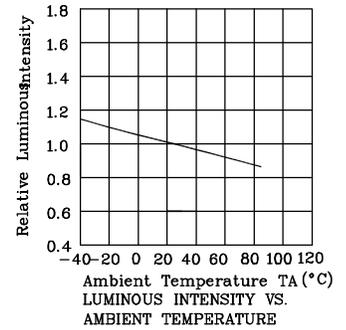
VF-Forward voltage (V)  
FORWARD CURRENT Vs.  
FORWARD VOLTAGE



IF-Forward Current (mA)  
LUMINOUS INTENSITY Vs.  
FORWARD CURRENT



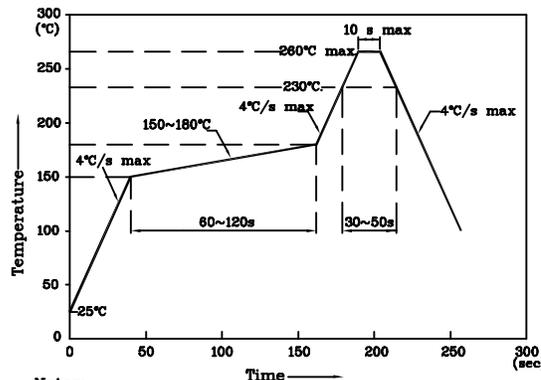
Ambient Temperature TA (°C)  
FORWARD CURRENT  
DERATING CURVE



Ambient Temperature TA (°C)  
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)

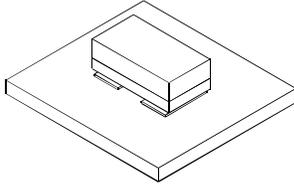


Notes:

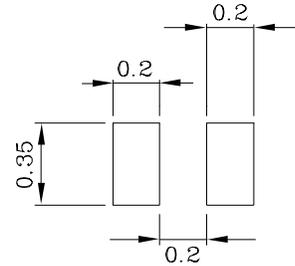
1. Maximum soldering temperature should not exceed 260°C
2. Recommended reflow temperature: 145°C-260°C
3. Do not put stress to the epoxy resin during high temperatures conditions



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

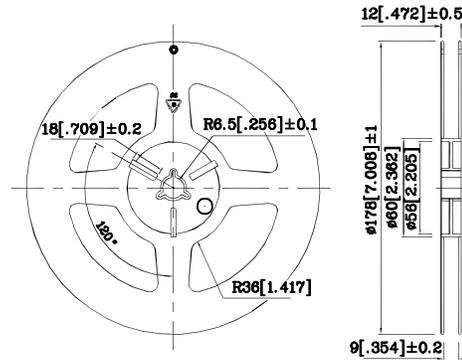


❖ Recommended Soldering Pattern  
(Units : mm; Tolerance:  $\pm 0.1$ )

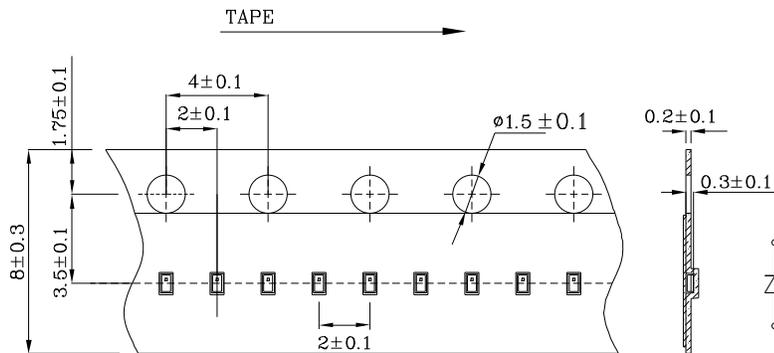


Mask open area ratio:80%  
Mask thickness:80~100um

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

Note: Accuracy may depend on the sorting parameters.

