

#### 3.4mm RIGHT ANGLE LED INDICATOR

Part Number: WP138A8QMP/GD/TG Green

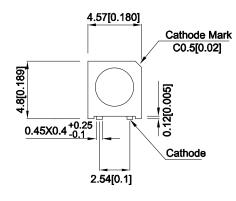
#### **Features**

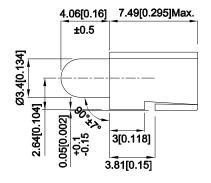
- Surface mount type.
- Black case enhances contrast ratio.
- Wide viewing angle.
- High reliability life measured in years.
- Package:1000pcs / reel.
- Moisture sensitivity level : level 3.
- Housing UL rating:94V-0.
- Housing material: PPA.
- · High temperature resistant housing.
- High glass transition temperature epoxy.
- RoHS compliant.

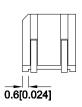
#### **Description**

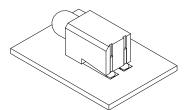
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

### **Package Dimensions**













#### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25 (0.01")$  unless otherwise noted.
- 3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

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#### **Selection Guide**

Part No.	Part No. Emitting Color (Material) Lens Type		lv (mcd) [2] @ 10mA		Viewing Angle [1]
		<i>,</i> .	Min.	Тур.	201/2
WP138A8QMP/GD/TG	Green (GaP)	Green Diffused	6	12	40°

#### Notes:

- 1.  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
- 2. Luminous intensity/ luminous Flux: +/-15%
- 3. Luminous intensity value is traceable to CIE127-2007 standards.

### Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Emitting Color	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green	565		nm	IF=10mA
λD [1]	Dominant Wavelength	Green	568		nm	IF=10mA
Δλ1/2	Spectral Line Half-width	Green	30		nm	IF=10mA
С	Capacitance	Green	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green	2.0	2.5	V	IF=10mA
lR	Reverse Current	Green		10	uA	VR = 5V

- 1. Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to CIE127-2007 standards.
- $4.\ Excess\ \bar{driving}\ current\ and/or\ operating\ temperature\ higher\ than\ recommended\ conditions\ may\ result\ in\ severe\ light\ degradation\ or\ degr$ premature failure.

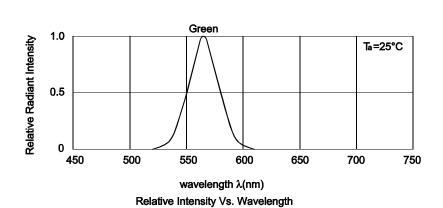
#### Absolute Maximum Ratings at TA=25°C

Parameter	Values	Units		
Power dissipation	62.5	mW		
DC Forward Current	25	mA		
Peak Forward Current [1]	140	mA		
Reverse Voltage	5	V		
Operating Temperature	-40°C To +85°C			
Storage Temperature	-40°C To +85°C			

#### Notes:

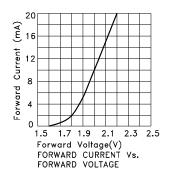
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

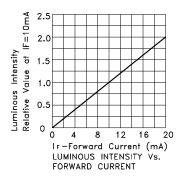
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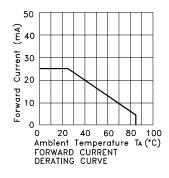


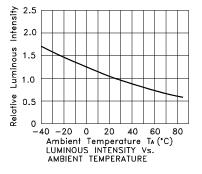
#### Green

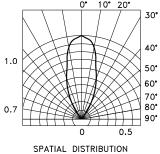
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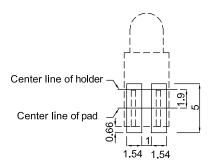




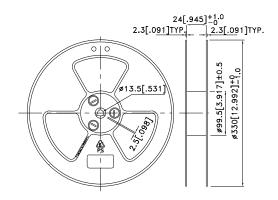
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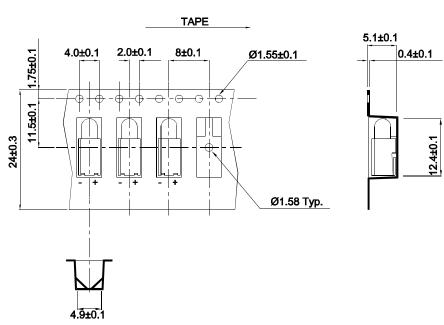
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



#### **Reel Dimension**



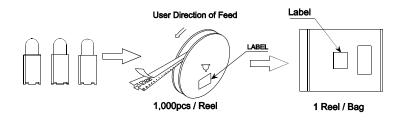
### Tape Dimensions (Units : mm)

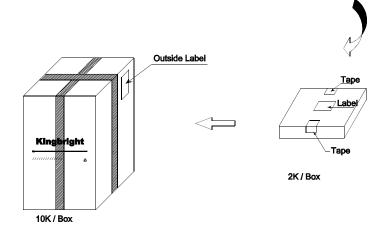


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#### **PACKING & LABEL SPECIFICATIONS**

#### WP138A8QMP/GD/TG







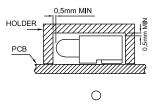
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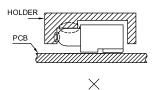
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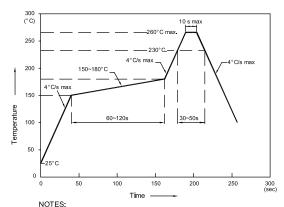
#### **PRECAUTIONS**

- 1.A moisture barrier bag (MBB) containing LEDs shall be kept in an environment with temperature below 40°C and humidity below 90% RH.
- A MBB shall be kept sealed until the LEDs contained in that bag are to be used immediately. Storge in an environment with temperature 5~30°C and humidity below 60% RH.
- 2.After a MBB has been opened, all LEDs contained in that bag shall complete soldering process within according to the conditions listed on the Kingbright MBB.
- 3.If the 10% spot of a humidity indicator card (HIC) indicates wet, LEDs shall be baked according to the conditions listed on the Kingbright MBB.
- 4.During soldering, component covers and holders should leave clearance to avoid placing damaging stress on the LED during soldering.





- 5. The tip of the soldering iron should never touch the lens epoxy.
- 6.After soldering, allow at least three minutes for the component to cool down to room temperature before further operations.
- 7.If the LED will undergo multiple soldering passes or face other processes where the part may be subjected to intense heat, please check with Kingbright for compatibility.
- 8. Recommended Reflow Soldering Profiles For SMD Housing LEDs



- 1.We recommend the reflow temperature 245° C(±5° C).The maximum soldering temperature should be limited to 260  $^{\circ}$  C.
- 2.Don't cause stress to the epoxy resin while it is exposed
- to high temperature.

  3.Recommended Solder: Sn/Cu/Ag.
- 4.No more than once.

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