

#### 4.7mm HOUSING FOR LED LAMP WITH WIRE



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: WP1533AA/GD14V-W152 Green

#### **Features**

- Outstanding material efficiency.
- Reliable and rugged.
- Low current capability.
- Housing UL rating: 94V-0.
- Housing material: type 66 nylon.
- 14V internal resistor.
- RoHS compliant.

#### Description

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

Static electricity and surge damage the LEDS.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

### **Package Dimensions**

Fig.1 :

ANODE LEAD :RED INSULATION LEAD ,24 AWG ,UL#1007,ø1.45mm,

TINNED OVERCOATED WIRE, STRIP 12.7mm.

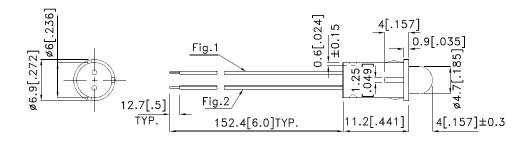
Fig. 2:

CATHODE LEAD :BLACK INSULATION LEAD ,24 AWG,UL#1007 ,Ø1.45mm,

TINNED OVERCOATED WIRE, STRIP 12.7mm.

Fig.3:

STAKING TO FIX THE HOLDER AND LED .



Remark:

Recommended panel mount hole diameter  $\phi = 6.30 \text{-} 6.35 \text{mm};$  panel thickness 1.0 mm.

#### Notes:

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

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 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: Y.Liu
 ERP: 1102009290

### **Selection Guide**

Part No.	Dice	Lens Type	lv (mo	,	Viewing Angle [1]
		3,1	Min. Typ.		201/2
WP1533AA/GD14V-W152	Green (GaP)	Green Diffused	10	25	60°

- 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 the CIE127-2007 compliant national standards.

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

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green	565		nm	VF=14V
λD [1]	Dominant Wavelength	Green	568		nm	VF=14V
Δλ1/2	Spectral Line Half-width	Green	30		nm	VF=14V
lF	Forward Current	Green	10.5	13.5	mA	VF=14V
lR	Reverse Current	Green		10	uA	VR = 5V

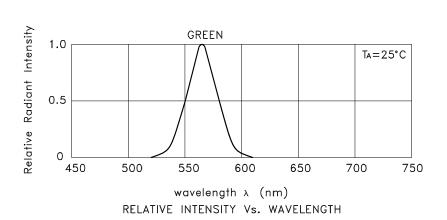
- 1.Wavelength: +/-1nm.
  2. Wavelength value is traceable to the CIE127-2007 compliant national standards.

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

Absolute maximum Natings at 1A-25 0				
Parameter	Green	Units		
Power dissipation	160	mW		
Forward Voltage	16 V			
Reverse Voltage	5	V		
Operating Temperature	-40°C To +70°C			
Storage Temperature	-40°C To +85°C			
Lead Solder Temperature [1]	260°C For 3 Seconds			
Lead Solder Temperature [2]	260°C For 5 Seconds			

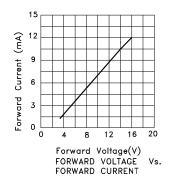
- 1. 2mm below package base.
- 2. 5mm below package base.

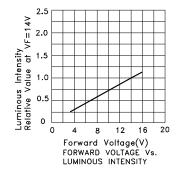
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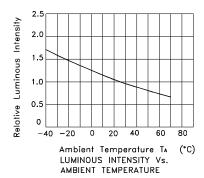


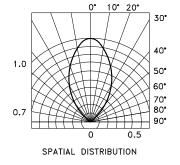
#### Green

#### WP1533AA/GD14V-W152



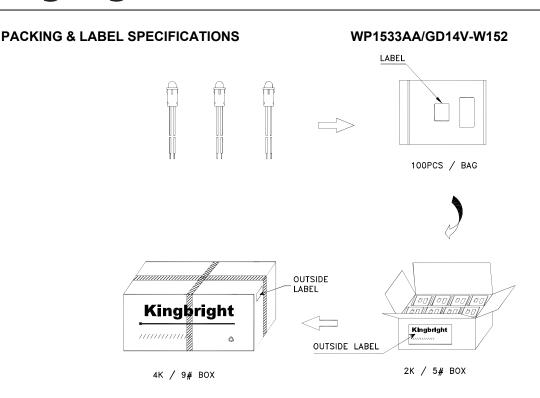


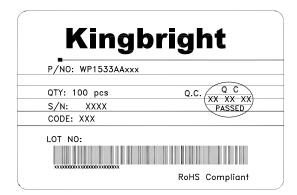




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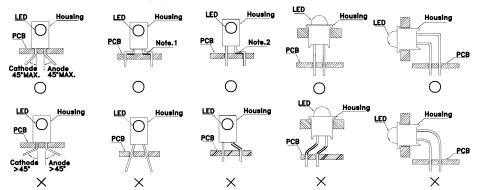
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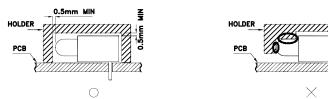
#### **PRECAUTIONS**

1. The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead—forming may be required to insure the lead pitch matches the hole pitch. Refer to the figure below for proper lead forming procedures.

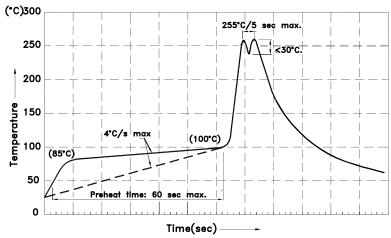


" $\bigcirc$ " Correct mounting method " $\times$ " Incorrect mounting method

2. During soldering, component covers and holders should leave clearance to avoid placing damaging stress on the LED during soldering.



- 3. The tip of the soldering iron should never touch the lens epoxy.
- 4. Through—hole LEDs are incompatible with reflow soldering.
- 5. 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.
- 6. Recommended Wave Soldering Profiles:



1.Recommend pre—heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C

2.Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max).

 $3.\mbox{Do}$  not apply stress to the epoxy resin while the temperature is above  $85\mbox{^{\circ}C}.$ 

4.Fixtures should not incur stress on the component when mounting and during soldering process.

 $5.\mathsf{SAC}$  305 solder alloy is recommended.

6.No more than one wave soldering pass.

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