

Part Number: WP1533AA/SRD14V-W152

Super Bright Red

### 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 Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

### Package Dimensions

Fig.1 :

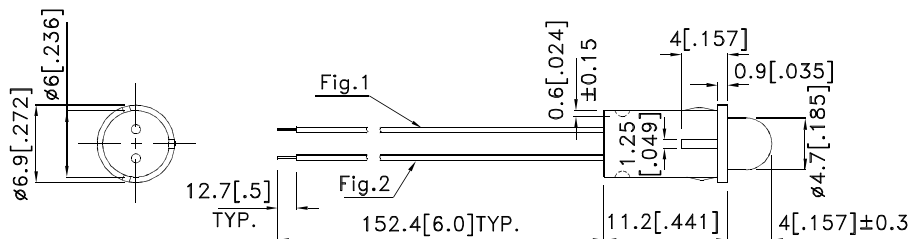
ANODE LEAD :RED INSULATION LEAD ,24 AWG ,UL#1007,Ø1.45mm,  
TINNED OVERCOATED WIRE , STRIP 12.7mm.

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

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.



## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] V= 14V		Viewing Angle [1]
			Min.	Typ.	2θ1/2
WP1533AA/SRD14V-W152	Super Bright Red (GaAlAs)	Red Diffused	150	300	60°

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.

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

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Red	660		nm	V <sub>F</sub> =14V
λD [1]	Dominant Wavelength	Super Bright Red	640		nm	V <sub>F</sub> =14V
Δλ1/2	Spectral Line Half-width	Super Bright Red	20		nm	V <sub>F</sub> =14V
I <sub>F</sub>	Forward Current	Super Bright Red	10.5	13.5	mA	V <sub>F</sub> =14V
I <sub>R</sub>	Reverse Current	Super Bright Red		10	uA	V <sub>R</sub> = 5V

Note:

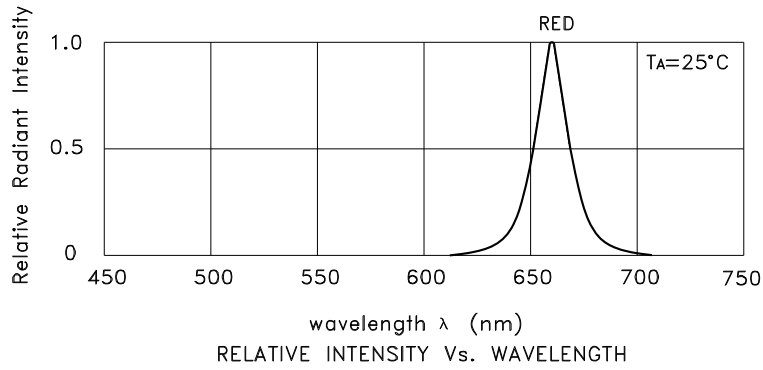
1. Wavelength: +/-1nm.

## Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Red	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	

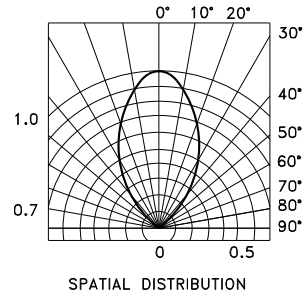
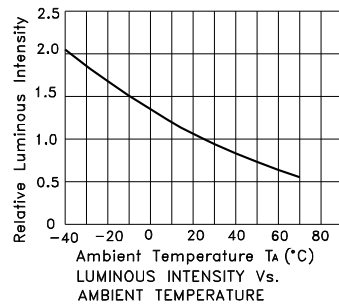
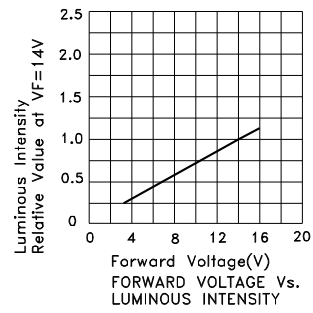
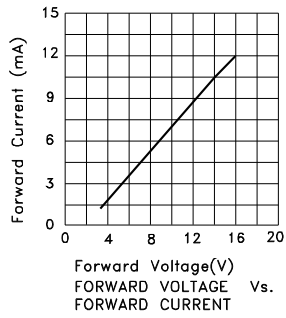
Notes:

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



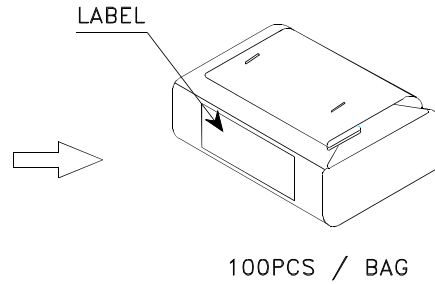
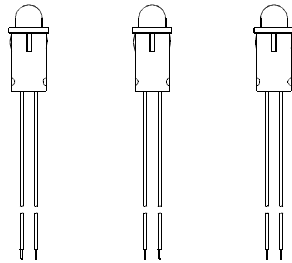
## Super Bright Red

## WP1533AA/SRD14V-W152



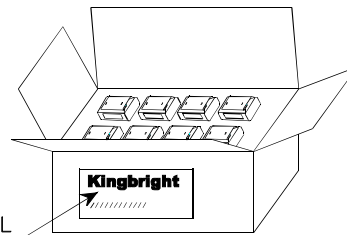
**PACKING & LABEL SPECIFICATIONS**

**WP1533AA/SRD14V-W152**




4K / 9# BOX

OUTSIDE LABEL



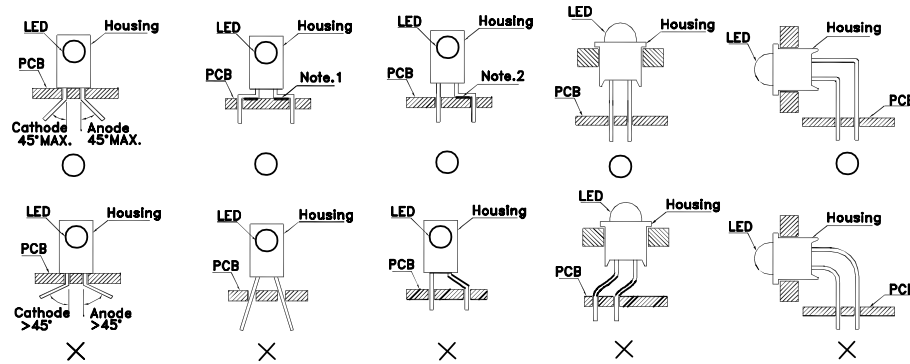
OUTSIDE LABEL

2K / 5# BOX

<h1>Kingbright</h1>	
P/N0: WP1533AAxxx	
QTY: 100 pcs	Q.C. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Q C XX XX XXXX PASSED</span>
S/N: XXXX	
CODE: XXX	
LOT NO:	
 XXXXXXXXXXXX	
RoHS Compliant	

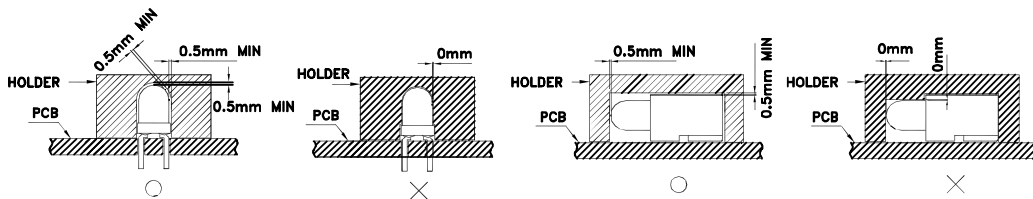
## PRECAUTIONS

- 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.

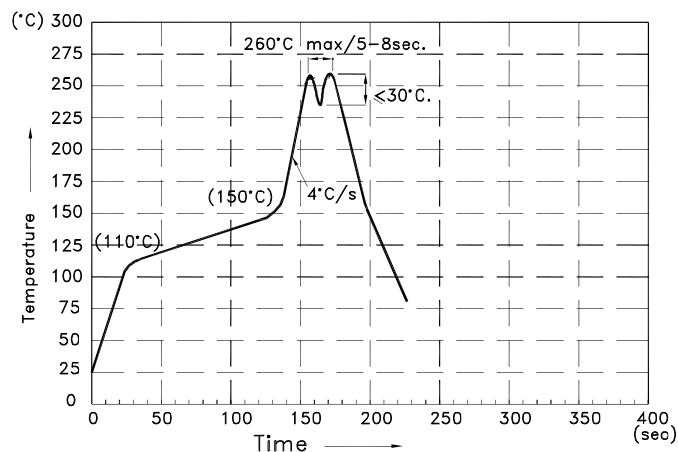


”○” Correct mounting method ”×” Incorrect mounting method

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



- The tip of the soldering iron should never touch the lens epoxy.
- Through-hole LEDs are incompatible with reflow soldering.
- 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.
- Recommended Wave Soldering Profile for Kingbright Thru-Hole Products



### NOTES:

- Recommend the wave temperature  $245^{\circ}\text{C} \sim 260^{\circ}\text{C}$ . The maximum soldering temperature should be less than  $260^{\circ}\text{C}$ .
- Do not apply stress on epoxy resins when temperature is over  $85^{\circ}\text{C}$ .
- The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
- During wave soldering, the PCB top-surface temperature should be kept below  $105^{\circ}\text{C}$ .
- No more than once.