

## T-1 (3mm) RIGHT ANGLE LED INDICATOR

Part Number: WP934TV/4LID

High Efficiency Red

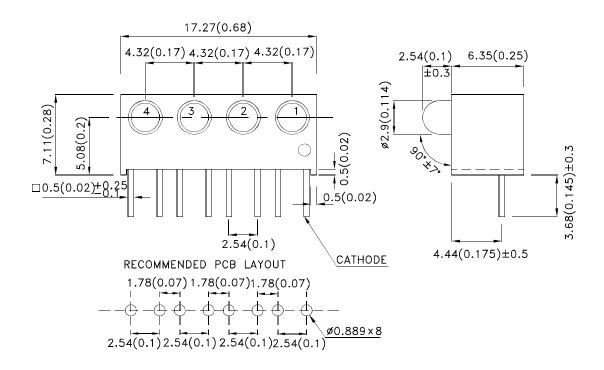
### **Features**

- Pre-trimmed leads for pc mounting.
- Black case enhances contrast ratio.
- Wide viewing angle.
- High reliability life measured in years.
- Housing UL rating:94V-0.
- Housing material: type 66 nylon.
- Low current IF=2mA operating.
- RoHS compliant.

## Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

## **Package Dimensions**



- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is ±0.25(0.01") unless otherwise noted.
- Lead spacing is measured where the leads emerge from the package.
   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.	Emitting Color (Material)	Lens Type	lv (mcd) [2] @ 2mA		Viewing Angle [1]
			Min.	Тур.	201/2
M/D024TV//4LID	High Efficiency Red (GaAsP/GaP)	Red Diffused	0.35	1	40°
WP934TV/4LID			*0.2	*0.6	

### 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%.

  \* 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	High Efficiency Red	627		nm	IF=2mA
λD [1]	Dominant Wavelength	High Efficiency Red	625		nm	IF=2mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	IF=2mA
С	Capacitance	High Efficiency Red	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	High Efficiency Red	1.7	2.5	V	IF=2mA
lR	Reverse Current	High Efficiency Red		10	uA	VR = 5V

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

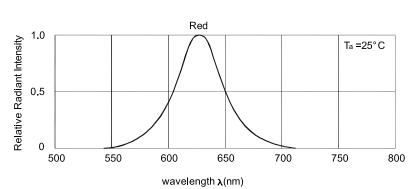
## Absolute Maximum Ratings at TA=25°C

Parameter	Values	Units		
Power dissipation	75	mW		
DC Forward Current	30	mA		
Peak Forward Current [1]	160	mA		
Reverse Voltage	5	V		
Operating/Storage Temperature	-40°C To +85°C			
Lead Solder Temperature [2]	260°C For 3 Seconds			
Lead Solder Temperature [3]	260°C For 5 Seconds			

- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
   2. 2mm below package base.
- 3. 5mm below package base.
- 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.

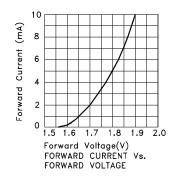
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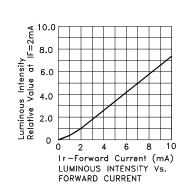
# **Kingbright**

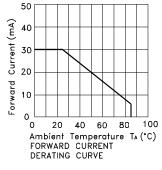


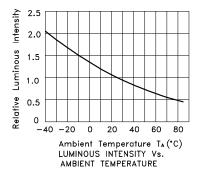
Relative Intensity Vs. Wavelength

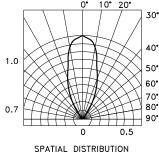
## High Efficiency Red WP934TV/4LID











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# **PACKING & LABEL SPECIFICATIONS** WP934TV/4LID 28PCS / IC TUBE 280PCS / 10PCS IC TUBE OUTSIDE LABEL Kingbright 4.2K / BOX Kingbright P/NO: WP934TVxxx QC 280 pcs OTY: xx xx xxxx S/N: XXXX PASSED CODE: XXX

## Terms and conditions for the usage of this document

LOT NO:

1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.

**RoHS** Compliant

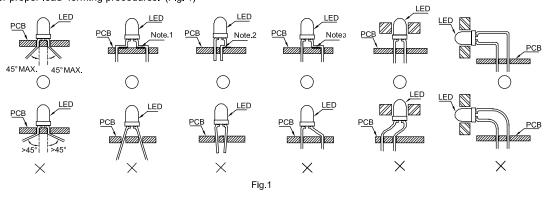
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### **PRECAUTIONS**

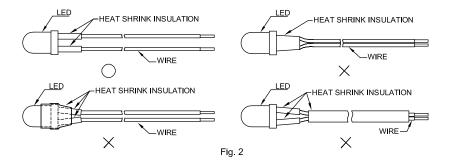
- 1. Storage conditions:
  - a. Avoid continued exposure to the condensing moisture environment and keep the product away from rapid transitions in ambient temperature.
  - b.LEDs should be stored with temperature ≦30°C and relative humidity < 60%.
  - c.Product in the original sealed package is recommended to be assembled within 72 hours of opening. Product in opened package for more than a week should be baked for 30 ( $\pm$ 10/-0) hours at 85 ~ 100°C.
- 2. 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. (Fig. 1)



"O" Correct mounting method "imes" Incorrect mounting method

Note 1-3: Do not route PCB trace in the contact area between the leadframe and the PCB to prevent short-circuits.

3. When soldering wires to the LED, each wire joint should be separately insulated with heat-shrink tube to prevent short-circuit contact. Do not bundle both wires in one heat shrink tube to avoid pinching the LED leads. Pinching stress on the LED leads may damage the internal structures and cause failure. (Fig. 2)



4. Use stand-offs (Fig.3) or spacers (Fig.4) to securely position the LED above the PCB.



- 5. Maintain a minimum of 3mm clearance between the base of the LED lens and the first lead bend. (Fig. 5 and 6)
- 6. During lead forming, use tools or jigs to hold the leads securely so that the bending force will not be transmitted to the LED lens and its internal structures. Do not perform lead forming once the component has been mounted onto the PCB. (Fig. 7)

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



### Как с нами связаться

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