

T-1 (3mm) BI-LEVEL LED INDICATOR

Part Number: WP934MD/2LID

High Efficiency Red

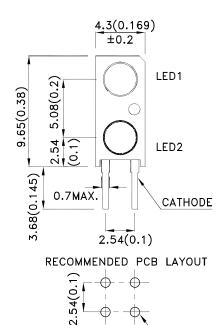
Features

- 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.

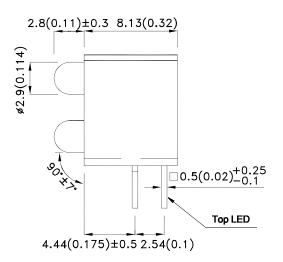
Description

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

Package Dimensions



2.54(0.1)





- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is ±0.25(0.01") unless otherwise noted.

 3. Lead spacing is measured where leads emerge from the package.
- 4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

Ø0.889×4

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Selection Guide

Part No.	Emitting Color (Material)	Emitting Color (Material) Lens Type Iv (mcd) [2] @ 2mA			Viewing Angle [1]
	-		Min.	Тур.	201/2
WD024MD/2LID	High Efficiency Red (GaAsP/GaP)	Red Diffused	0.35	1	40°
WP934MD/2LID			*0.2	*0.6	

- $1.\,\theta1/2$ is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
- 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	617		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:

- Wavelength: +/-1nm.
 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.

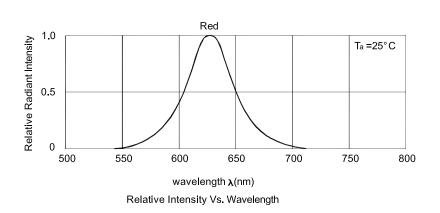
Absolute Maximum Ratings at TA=25°C

ameter Values		Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	160		
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		

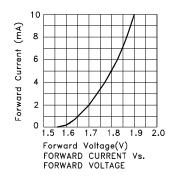
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. 2mm below package base.
- 3. 5mm below package base.
- Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

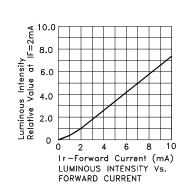
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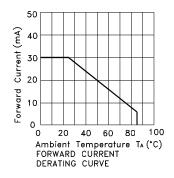
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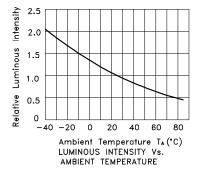


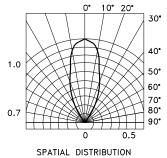
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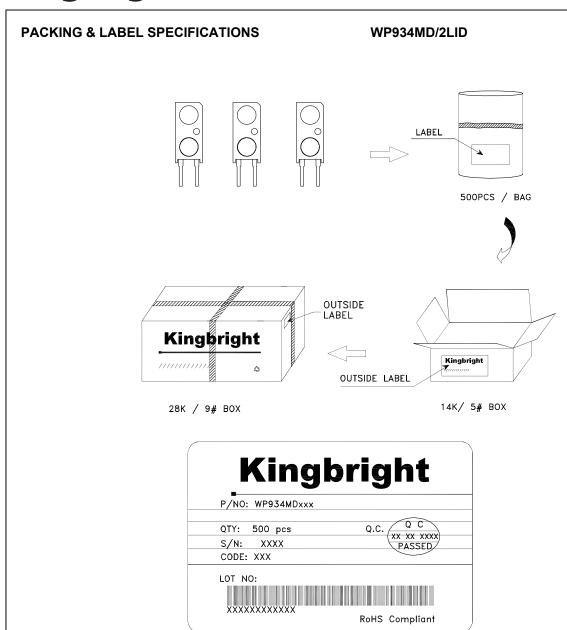






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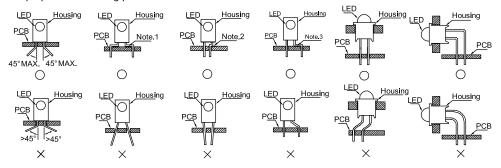
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PRECAUTIONS

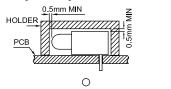
- 1. Storage conditions:
 - a. Avoid continued exposure to the condensing moisture environment and keep the product away from rapid transitions in ambient temperature.
 - b.LEDs should be stored with temperature \leq 30°C and relative humidity < 60%.
 - c.Product in the original sealed package is recommended 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.
- 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.

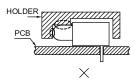


" \bigcirc " Correct mounting method " \times " Incorrect mounting method

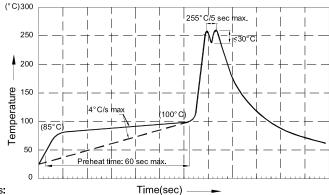
Note 1-3: Do not route PCB trace in the contact area between the leadframe and the PCB to prevent short-circuits.

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





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



- Notes: Time(sec) —

 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.Do not apply stress to the epoxy resin while the temperature is above 85°C.
- 4.Fixtures should not incur stress on the component when mounting and during soldering process.
- 5.SAC 305 solder alloy is recommended.
- 6.No more than one wave soldering pass.

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- Защита от снятия компонента с производства.



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