

# Kingbright

## T-1 3/4 (5mm) BI-COLOR RIGHT ANGLE LED INDICATOR

Part Number: WP59BL/EYW

High Efficiency Red  
Yellow

### Features

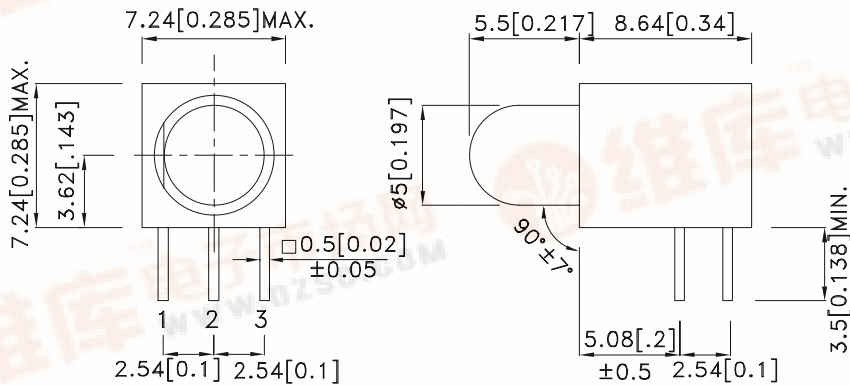
- PRE-TRIMMED LEADS FOR PC BOARD MOUNTING.
- 3 LEADS WITH COMMON CATHODE LEAD.
- I.C. COMPATIBLE.
- BLACK CASE ENHANCES CONTRAST RATIO.
- WIDE VIEWING ANGLE.
- HIGH RELIABILITY - LIFE MEASURED IN YEARS.
- UL RATING : 94V-0.
- HOUSING MATERIAL: TYPE 66 NYLON.
- RoHS COMPLIANT.

### Description

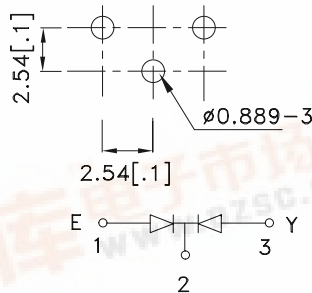
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

### Package Dimensions



RECOMMENDED PCB LAYOUT



- 1 ANODE RED
- 2 COMMON CATHODE
- 3 ANODE YELLOW

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.



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## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	θ1/2
WP59BL/EYW	High Efficiency Red (GaAsP/GaP)	WHITE DIFFUSED	18	60	60°
	Yellow (GaAsP/GaP)		18	40	

Notes:

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

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

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	High Efficiency Red Yellow	627 590		nm	I <sub>F</sub> =20mA
$\lambda_D$ [1]	Dominant Wavelength	High Efficiency Red Yellow	625 588		nm	I <sub>F</sub> =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	High Efficiency Red Yellow	45 35		nm	I <sub>F</sub> =20mA
C	Capacitance	High Efficiency Red Yellow	15 20		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub> [2]	Forward Voltage	High Efficiency Red Yellow	2 2.1	2.5 2.5	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	High Efficiency Red Yellow		10 10	uA	V <sub>R</sub> = 5V

Notes:

1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

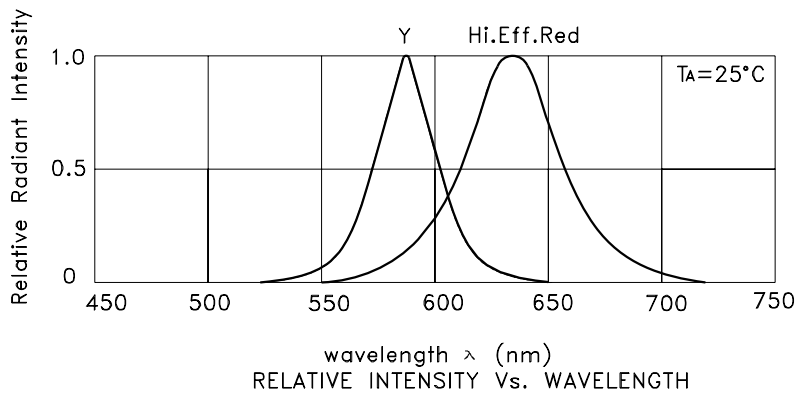
## Absolute Maximum Ratings at TA=25°C

Parameter	High Efficiency Red	Yellow	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	160	140	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		

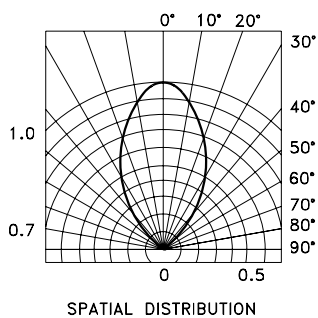
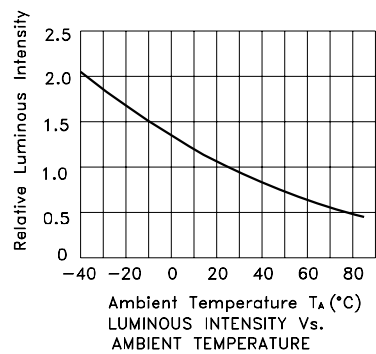
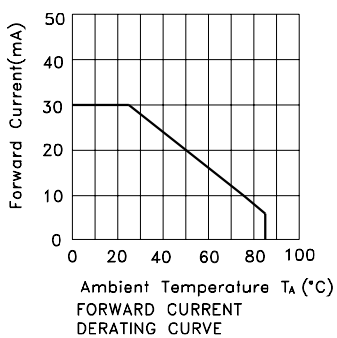
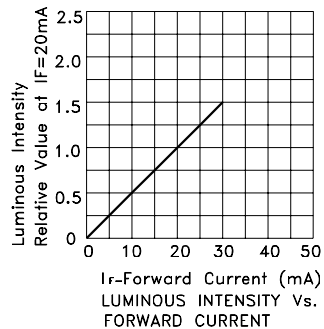
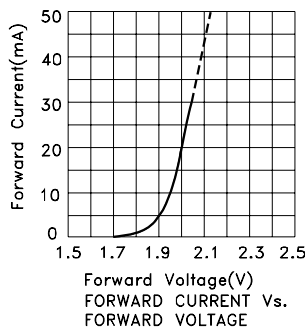
Notes:

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

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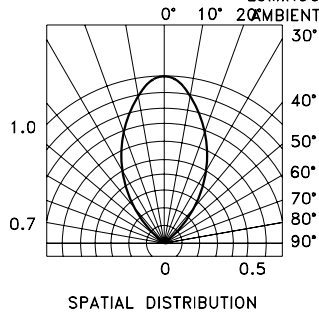
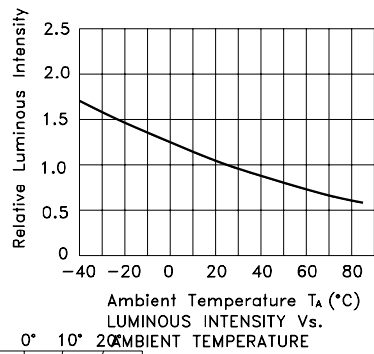
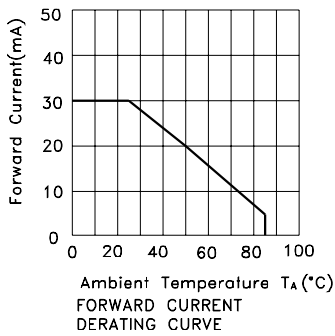
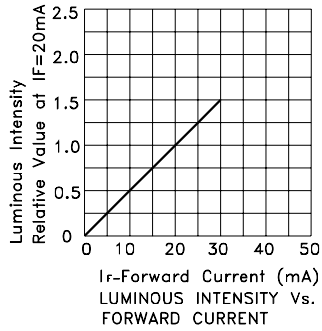
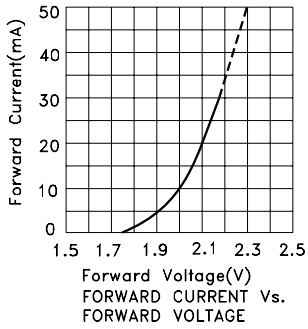


## WP59BL/EYW High Efficiency Red



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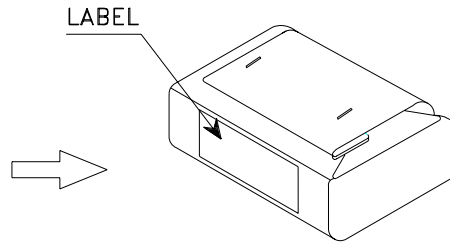
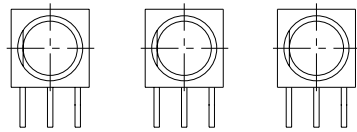
## Yellow



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## PACKING & LABEL SPECIFICATIONS

## WP59BL/EYW

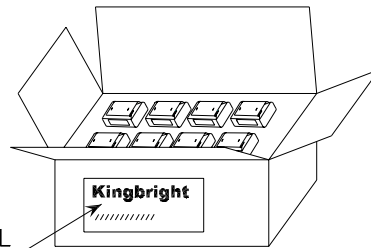
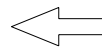


500PCS / BAG




14K / 9# BOX

OUTSIDE LABEL



OUTSIDE LABEL

7K / 5# BOX

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Q.C.	<table border="1"> <tr> <td style="text-align: center;">QC</td> </tr> <tr> <td style="text-align: center;">XX XX XX</td> </tr> <tr> <td style="text-align: center;">PASSED</td> </tr> </table>	QC	XX XX XX	PASSED
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XX XX XX				
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QUANTITY : 500 pcs				
S/N : XX	CODE: XX			
LOT NO :  <small>xx-xxxx</small>				
RoHS Compliant				