Kingbright

4mm SOLID STATE LAMP

Part Number: WP44HD BRIGHT RED

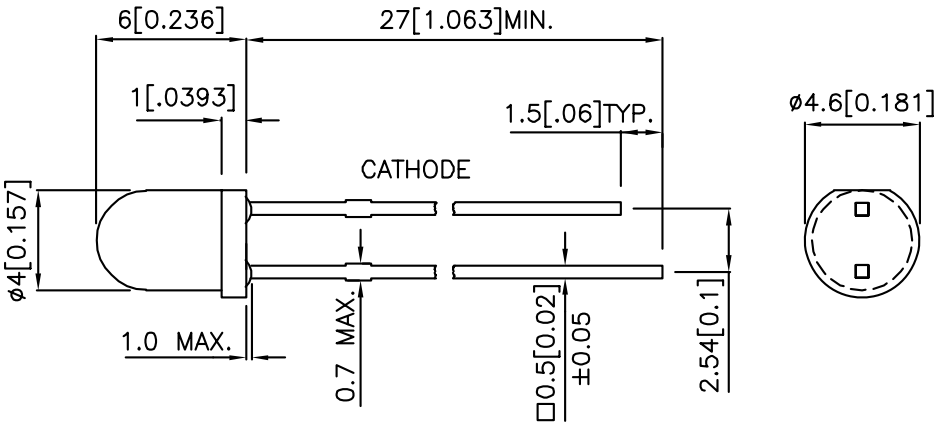
Features

- LOW POWER CONSUMPTION.
- VERSATILE MOUNTING ON P.C. BOARD OR PANEL.
- POPULAR 4mm DIAMETER.
- RELIABLE AND RUGGED.
- RoHS COMPLIANT.

Description

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

Package Dimensions



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 lead 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] @ 10mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
WP44HD	BRIGHT RED (GaP)	RED DIFFUSED	0.7	2	80°

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 T_A=25°C

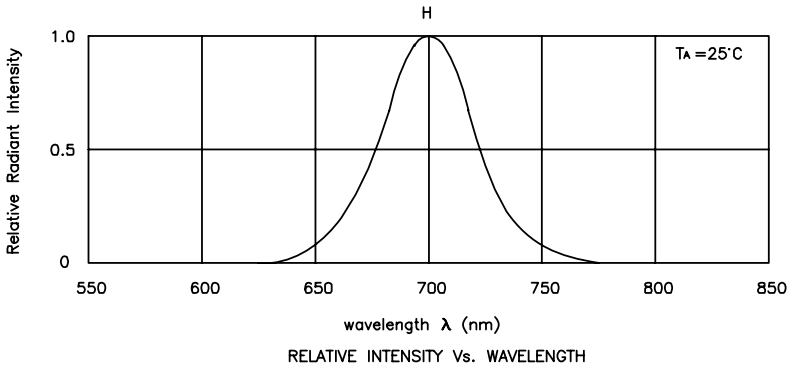
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Bright Red	700		nm	I_F=20mA
λD [1]	Dominant Wavelength	Bright Red	660		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	Bright Red	45		nm	I_F=20mA
C	Capacitance	Bright Red	40		pF	V_F=0V;f=1MHz
V_F [2]	Forward Voltage	Bright Red	2.25	2.5	V	I_F=20mA
I_R	Reverse Current	Bright Red		10	uA	V_R = 5V

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

Absolute Maximum Ratings at T_A=25°C

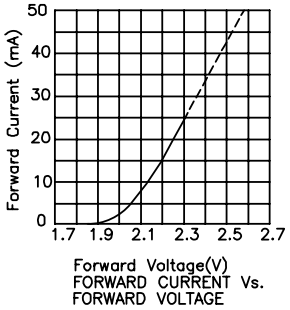
Parameter	Bright Red	Units
Power dissipation	120	mW
DC Forward Current	25	mA
Peak Forward Current [1]	130	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [2]	260°C For 3 Seconds	
Lead Solder Temperature [3]	260°C For 5 Seconds	

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

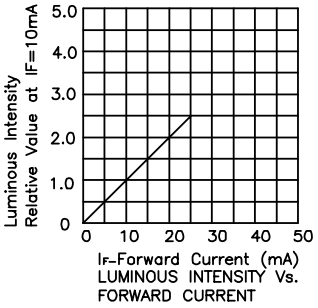


RELATIVE INTENSITY Vs. WAVELENGTH

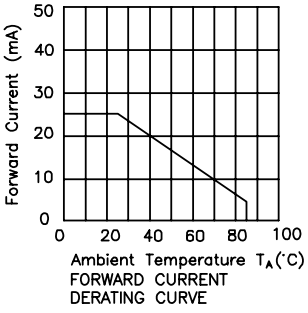
Bright Red **WP44HD**



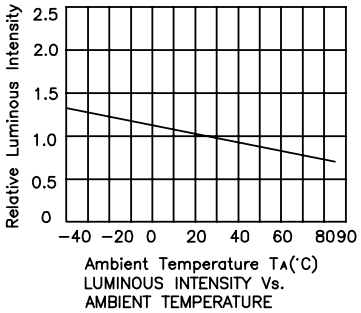
FORWARD CURRENT Vs.
FORWARD VOLTAGE



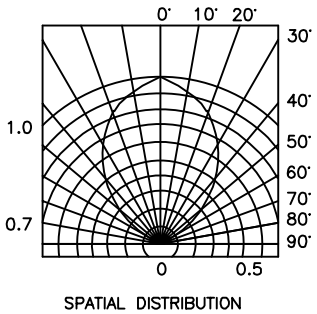
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

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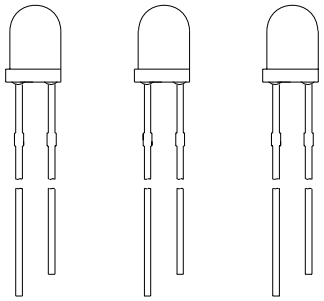
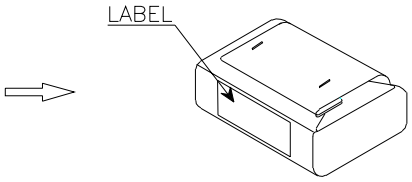
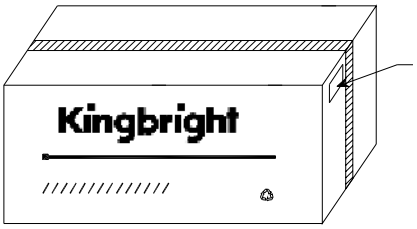
PACKING & LABEL SPECIFICATIONS **WP44HD**

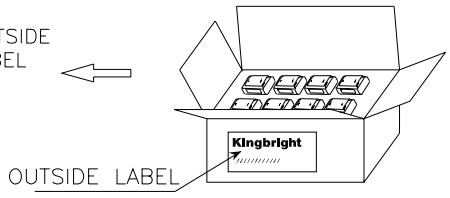




1,000PCS / BAG



OUTSIDE LABEL



48K / 9# BOX

24K / 5# BOX

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Q.C.	QC xx xx xx PASSED
TYPE NO : WP44HD	
QUANTITY : 1,000 pcs	
S/N : XXX	CODE: XX
LOT NO xxxxxxxxxxx	RoHS Compliant