Kingbright

T-1 (3mm) SOLID STATE LAMP
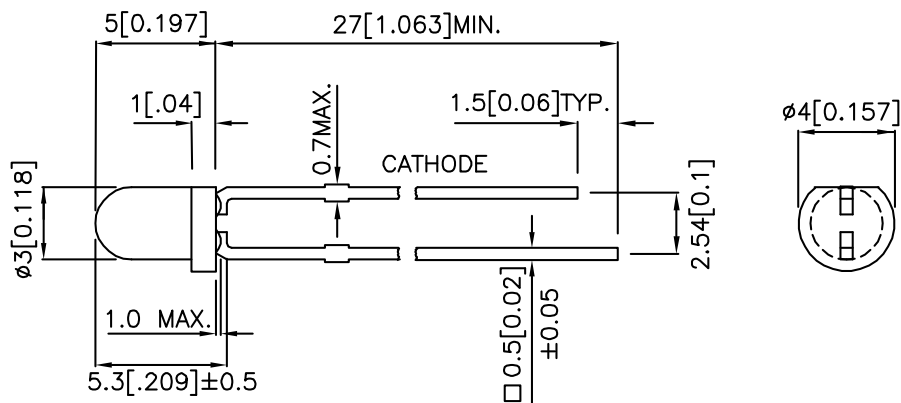
WP34HD   BRIGHT RED

Features

- LOW POWER CONSUMPTION.
- POPULAR T-1 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.
- 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 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) @ 10mA | | Viewing Angle |
			Min.	Typ.	2 θ 1/2
WP34HD	BRIGHT RED (GaP)	RED DIFFUSED	1	3	60°

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
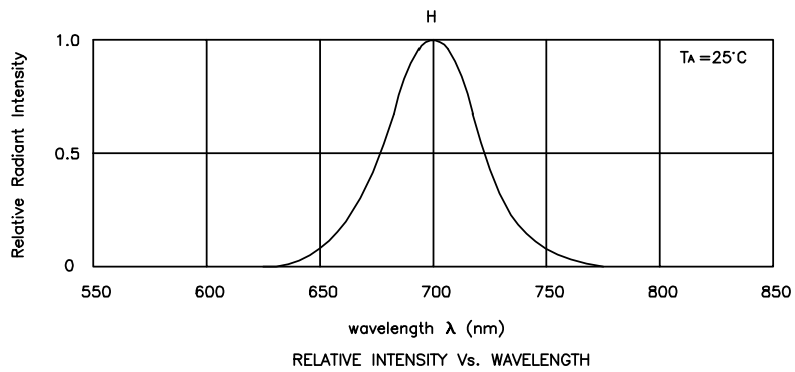
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Bright Red	700		nm	I_F=20mA
λD	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	Forward Voltage	Bright Red	2.25	2.5	V	I_F=20mA
I_R	Reverse Current	Bright Red		10	uA	V_R = 5V

Absolute Maximum Ratings at T_A=25°C

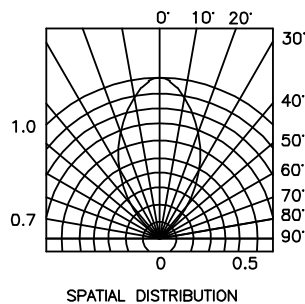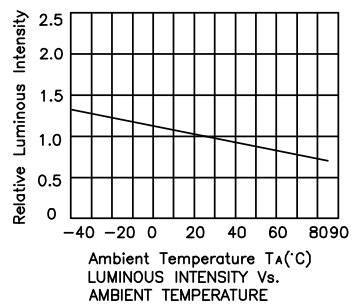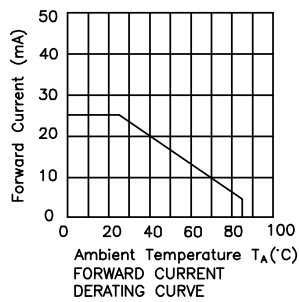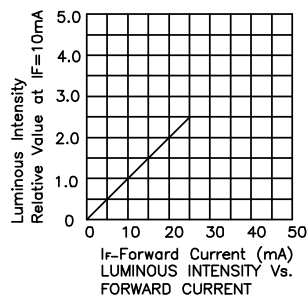| Parameter	Bright Red	Units
Power dissipation	120	mW
DC Forward Current	25	mA
Peak Forward Current [1]	130	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	
Lead Solder Temperature [2]	260°C For 3 Seconds	
Lead Solder Temperature [3]	260°C For 5 Seconds	

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

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H

TA=25°C

Relative Radiant Intensity

1.0

0.5

0

wavelength λ (nm)

550   600   650   700   750   800   850

RELATIVE INTENSITY Vs. WAVELENGTH

Bright Red   WP34HD

Forward Current (mA)

50
40
30
20
10
0
1.7 1.9 2.1 2.3 2.5 2.7
Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE

Luminous Intensity
Relative Value at IF=10mA

5.0
4.0
3.0
2.0
1.0
0
0   10   20   30   40   50
IF-Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

Forward Current (mA)

50
40
30
20
10
0
0   20   40   60   80   100
Ambient Temperature TA(°C)
FORWARD CURRENT
DERATING CURVE

Relative Luminous Intensity

2.5
2.0
1.5
1.0
0.5
0
-40 -20 0   20   40   60   8090
Ambient Temperature TA(°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

0° 10° 20°
30°
40°
50°
60°
70°
80°
90°

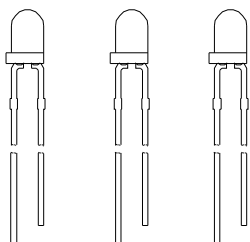1.0

0.7

0   0.5

SPATIAL DISTRIBUTION

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PACKING & LABEL SPECIFICATIONS   WP34HD

P/N: WP34XXX

LABEL

1,000PCS / BAG

OUTSIDE LABEL

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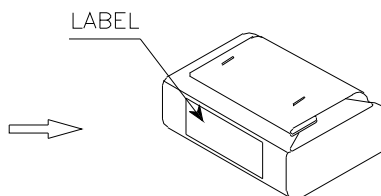
56K / 9# BOX

OUTSIDE LABEL

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28K / 5# BOX

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Q.C.

QC

XXX XX XXXX

PASSED

Date

TYPE NO :   WP34XXX

QUANTITY :   1,000   pcs

S/N :   XXX   CODE: XX

LOT NO :   xxxxxxxxxx

RoHS Compliant

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm

2. Luminous Intensity: +/-15%

3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.