

### 1.75x3.9mm RECTANGULAR LED LAMP

WP1773HD

BRIGHT RED

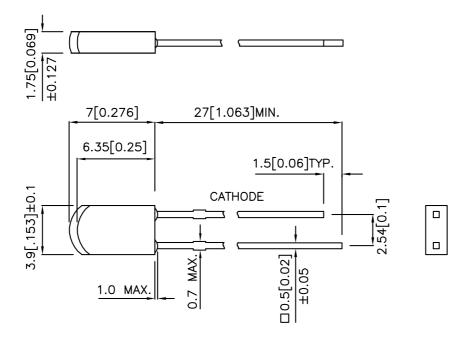
#### **Features**

- •LOW POWER CONSUMPTION.
- •I.C. COMPATIBLE.
- •ROUNDED END RECTANGULAR SHAPE.
- •LONG LIFE-SOLID STATE RELIABILITY.
- ●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.

SPEC NO: DSAF2561 **REV NO: V.1** DATE: APR/19/2005 **PAGE: 1 OF 3** APPROVED: J. Lu CHECKED: Allen Liu DRAWN: Y.W.WANG ERP:1101003152

# **Kingbright**

### **Selection Guide**

| Part No. | Dice             | Lens Type    | lv (mcd)<br>@ 10mA |      | Viewing<br>Angle |
|----------|------------------|--------------|--------------------|------|------------------|
|          |                  |              | Min.               | Тур. | 2 θ 1/2          |
| WP1773HD | BRIGHT RED (GaP) | RED DIFFUSED | 0.7                | 2    | 100°             |

# Electrical / Optical Characteristics at Ta=25°C

| Symbol         | Parameter                | Device     | Тур. | Max. | Units | Test Conditions |
|----------------|--------------------------|------------|------|------|-------|-----------------|
| λpeak          | Peak Wavelength          | Bright Red | 700  |      | nm    | IF=20mA         |
| λD             | Dominant Wavelength      | Bright Red | 660  |      | nm    | IF=20mA         |
| Δλ1/2          | Spectral Line Half-width | Bright Red | 45   |      | nm    | IF=20mA         |
| С              | Capacitance              | Bright Red | 40   |      | pF    | VF=0V;f=1MHz    |
| V <sub>F</sub> | Forward Voltage          | Bright Red | 2.25 | 2.5  | V     | IF=20mA         |
| I <sub>R</sub> | Reverse Current          | Bright Red |      | 10   | uA    | VR = 5V         |

# Absolute Maximum Ratings at Ta=25°C

| Parameter                       | Bright Red          |    |  |
|---------------------------------|---------------------|----|--|
| 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 |    |  |

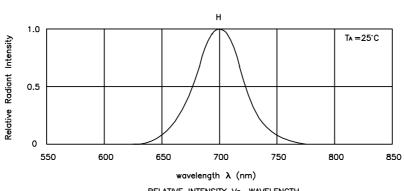
#### Notes:

- 1.1/10 Duty Cycle, 0.1ms Pulse Width.
   2.2mm below package base.
   5mm below package base.

SPEC NO: DSAF2561 **REV NO: V.1** DATE: APR/19/2005 PAGE: 2 OF 3 APPROVED: J. Lu **CHECKED: Allen Liu** DRAWN: Y.W.WANG ERP:1101003152

<sup>1.</sup>  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

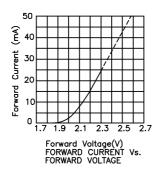
# Kingbright

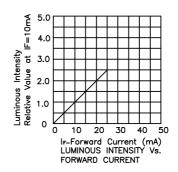


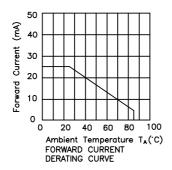
RELATIVE INTENSITY Vs. WAVELENGTH

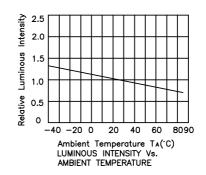
# **Bright Red**

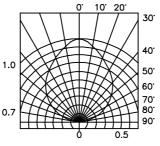
## **WP1773HD**











SPATIAL DISTRIBUTION

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.

REV NO: V.1 SPEC NO: DSAF2561 **DATE: APR/19/2005** PAGE: 3 OF 3 APPROVED: J. Lu CHECKED: Allen Liu DRAWN: Y.W.WANG ERP:1101003152