

# T-1 3/4 (5mm) VARIABLE HEIGHT LED BOARD **INDICATOR**

WP7113BR9.52/ID

HIGH EFFICIENCY RED

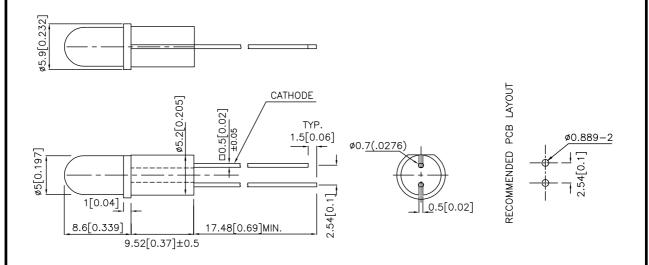
#### **Features**

- •LED FIRMLY HELD BY SPACER-NO ADDITIONAL FIXTURING OR GLUEING NECESSARY.
- •SUITABLE FOR BACK PANEL ILLUMINATION, CIRCUIT BOARD INDICATOR, LED INDICATOR.
- •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.

### **Package Dimensions**



- 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: DSAF2108 APPROVED: J. Lu

**REV NO: V.1** CHECKED: Allen Liu DATE: APR/19/2005 DRAWN: H.Q.YUAN **PAGE: 1 OF 4** ERP:1102001516

# **Kingbright**

### **Selection Guide**

| Part No.        | Dice                            | Lens Type    | lv (mcd)<br>@ 10mA |      | Viewing<br>Angle |
|-----------------|---------------------------------|--------------|--------------------|------|------------------|
|                 |                                 |              | Min.               | Тур. | 2 θ 1/2          |
| WP7113BR9.52/ID | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED | 8                  | 45   | 30°              |

#### Note:

# Electrical / Optical Characteristics at Ta=25°C

| Symbol | Parameter                | Device              | Тур. | Max. | Units | Test Conditions |
|--------|--------------------------|---------------------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | High Efficiency Red | 627  |      | nm    | IF=20mA         |
| λD     | Dominant Wavelength      | High Efficiency Red | 625  |      | nm    | IF=20mA         |
| Δλ1/2  | Spectral Line Half-width | High Efficiency Red | 45   |      | nm    | IF=20mA         |
| С      | Capacitance              | High Efficiency Red | 15   |      | pF    | VF=0V;f=1MHz    |
| VF     | Forward Voltage          | High Efficiency Red | 2.0  | 2.5  | V     | IF=20mA         |
| lr     | Reverse Current          | High Efficiency Red |      | 10   | uA    | VR = 5V         |

# Absolute Maximum Ratings at Ta=25°C

| Parameter                     | High Efficiency Red               | Units |  |  |
|-------------------------------|-----------------------------------|-------|--|--|
| Power dissipation             | 105                               | mW    |  |  |
| DC Forward Current            | 30                                | mA    |  |  |
| Peak Forward Current [1]      | 160                               | mA    |  |  |
| Reverse Voltage               | 5                                 | V     |  |  |
| Operating/Storage Temperature | -40°C To +85°C                    |       |  |  |
| Lead Solder Temperature [2]   | mperature [2] 260°C For 3 Seconds |       |  |  |
| Lead Solder Temperature [3]   | 260°C For 5 Seconds               |       |  |  |

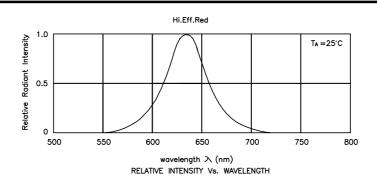
#### Notes:

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

SPEC NO: DSAF2108 REV NO: V.1 DATE:APR/19/2005 PAGE: 2 OF 4
APPROVED: J. Lu CHECKED: Allen Liu DRAWN: H.Q.YUAN ERP:1102001516

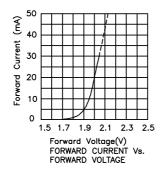
<sup>1.</sup>  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

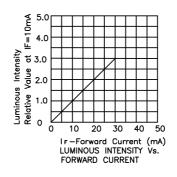
# **Kingbright**

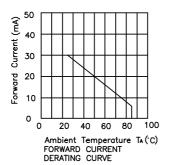


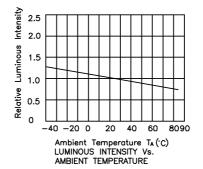
## High Efficiency Red

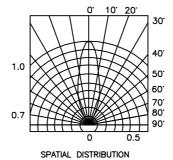
### WP7113BR9.52/ID











#### 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:

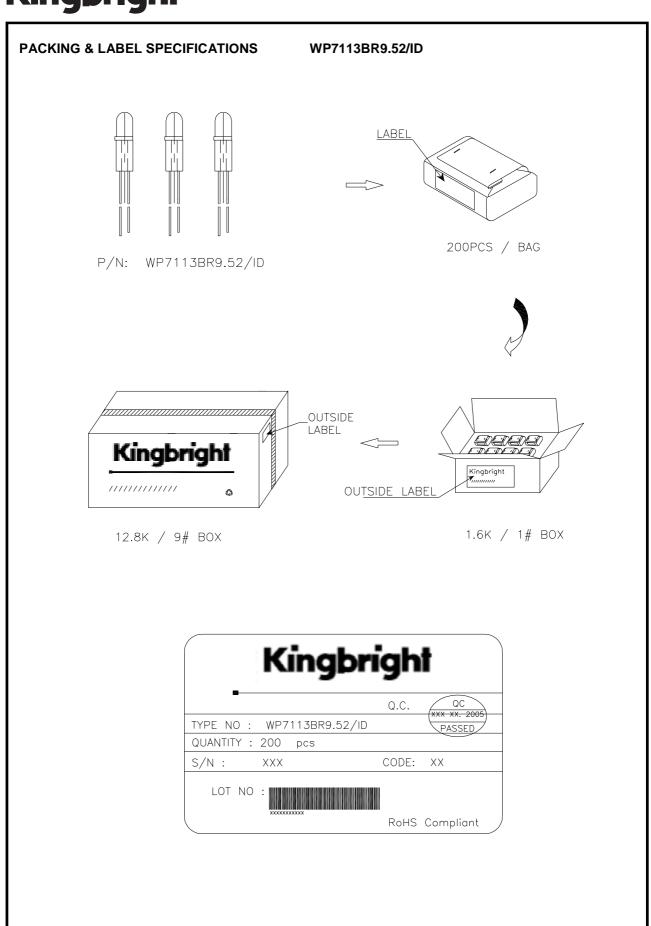
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

 SPEC NO: DSAF2108
 REV NO: V.1
 DATE:APR/19/2005
 PAGE: 3 OF 4

 APPROVED: J. Lu
 CHECKED: Allen Liu
 DRAWN: H.Q.YUAN
 ERP:1102001516

# **Kingbright**



SPEC NO: DSAF2108 APPROVED: J. Lu REV NO: V.1 CHECKED: Allen Liu DATE:APR/19/2005 DRAWN: H.Q.YUAN PAGE: 4 OF 4 ERP:1102001516