

WP813ID

HIGH EFFICIENCY RED

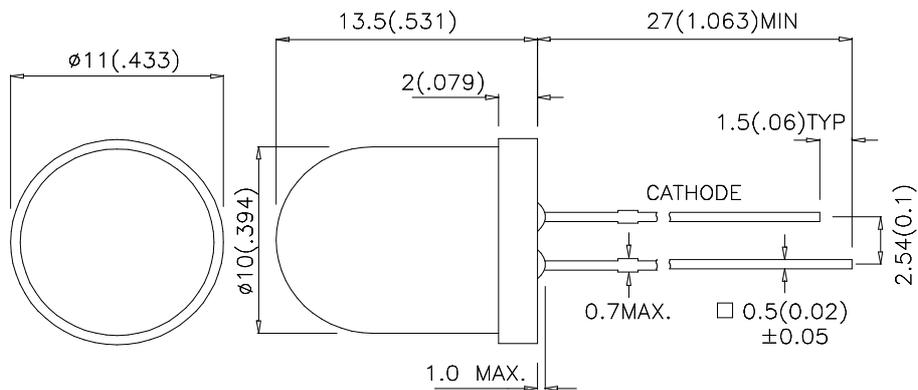
Features

- 10mm DIAMETER BIG LAMP.
- I.C. COMPATIBLE.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- 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



Notes:

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

Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 20mA | | Viewing Angle |
|----------|---------------------------------|--------------|--------------------|------|------------------|
| | | | Min. | Typ. | 2 θ 1/2 |
| WP813ID | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED | 36 | 100 | 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 TA=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-------------------|--------------------------|---------------------|------|------|-------|---------------------------|
| λ _{peak} | Peak Wavelength | High Efficiency Red | 627 | | nm | I _F =20mA |
| λ _D | Dominant Wavelength | High Efficiency Red | 625 | | nm | I _F =20mA |
| Δλ _{1/2} | Spectral Line Half-width | High Efficiency Red | 45 | | nm | I _F =20mA |
| C | Capacitance | High Efficiency Red | 15 | | pF | V _F =0V;f=1MHz |
| V _F | Forward Voltage | High Efficiency Red | 2.0 | 2.5 | V | I _F =20mA |
| I _R | Reverse Current | High Efficiency Red | | 10 | uA | V _R = 5V |

Absolute Maximum Ratings at TA=25°C

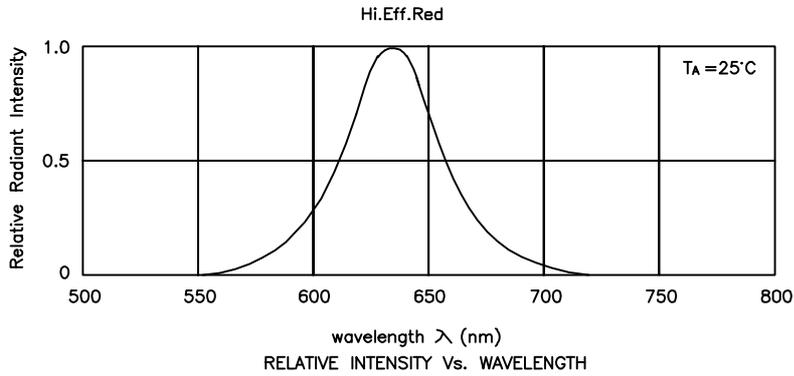
| Parameter | High Efficiency Red | Units |
|-------------------------------|---------------------|-------|
| Power dissipation | 105 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 160 | mA |
| Reverse Voltage | 5 | V |
| Operating/Storage Temperature | -40°C To +85°C | |
| Lead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

Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

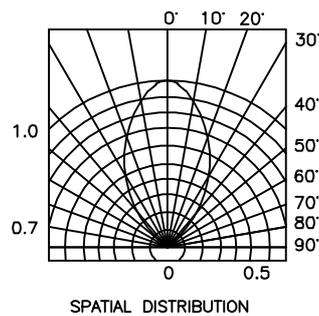
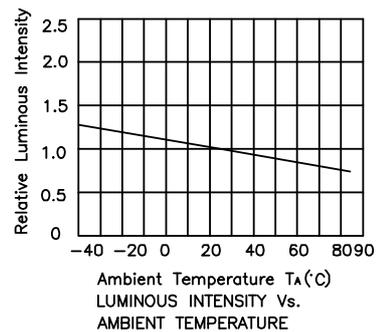
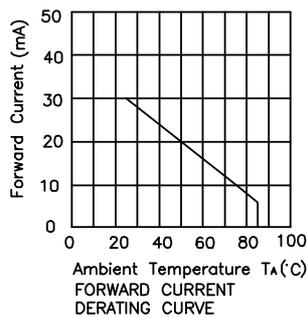
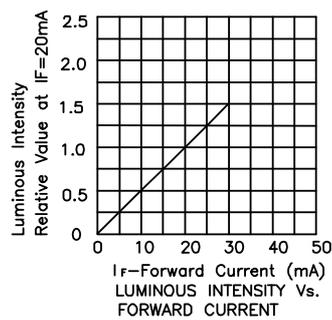
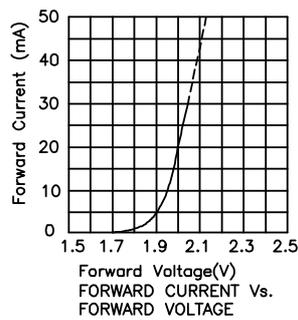
2. 2mm below package base.

3. 5mm below package base.



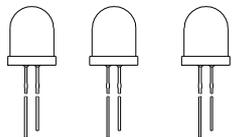
High Efficiency Red

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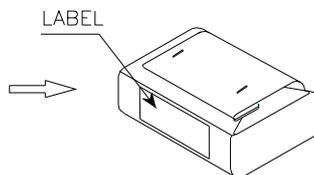


PACKING & LABEL SPECIFICATIONS

WP813ID



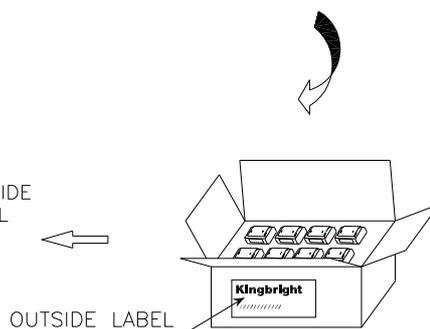
P/N: WP813ID



200PCS / BAG



8K / 9# BOX



1K / 1# BOX

| | | | | |
|-------------------|--|----|----------|--------|
| Kingbright | | | | |
| Q.C. | <table border="1"> <tr> <td>QC</td> </tr> <tr> <td>xx xx xx</td> </tr> <tr> <td>PASSED</td> </tr> </table> | QC | xx xx xx | PASSED |
| QC | | | | |
| xx xx xx | | | | |
| PASSED | | | | |
| TYPE NO : | WP813ID | | | |
| QUANTITY : | 200 pcs | | | |
| S/N : | XXX | | | |
| CODE: | XX | | | |
| LOT NO |  xxxxxxxxxxxx | | | |
| 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.