

Part Number: WP130WDT/EGW

High Efficiency Red
Green

Features

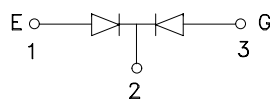
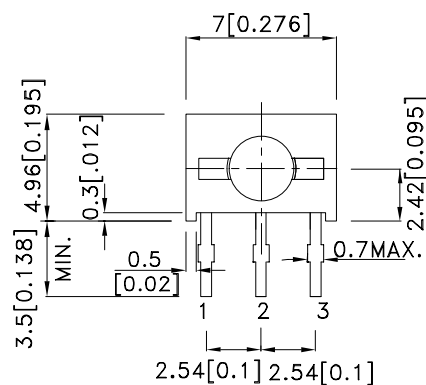
- PRE-TRIMMED LEADS FOR PC BOARD MOUNTING.
- 3 LEADS WITH COMMON CATHODE.
- I.C. COMPATIBLE.
- BLACK CASE ENHANCES CONTRAST RATIO.
- UL RATING : 94V-0.
- HOUSING MATERIAL: TYPE 66 NYLON.
- RoHS COMPLIANT.

Description

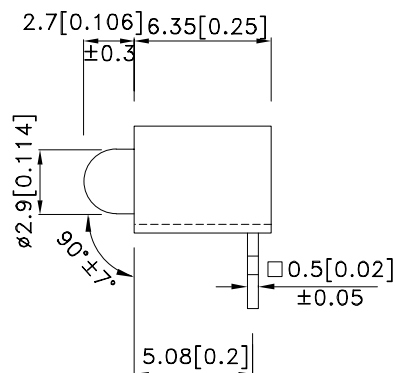
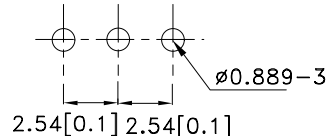
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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

Package Dimensions



RECOMMENDED PCB LAYOUT



- ```
1 ANODE RED
2 COMMON CATHODE
3 ANODE GREEN
```

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) [2]<br>@ 20mA |      | Viewing<br>Angle [1] |
|--------------|---------------------------------|----------------|------------------------|------|----------------------|
|              |                                 |                | Min.                   | Typ. |                      |
| WP130WDT/EGW | High Efficiency Red (GaAsP/GaP) | WHITE DIFFUSED | 7                      | 30   | 60°                  |
|              | Green (GaP)                     |                | 7                      | 25   |                      |

### Notes:

1.  $\theta 1/2$  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 TA=25°C

| Symbol                | Parameter                | Device                       | Typ.       | Max.       | Units | Test Conditions           |
|-----------------------|--------------------------|------------------------------|------------|------------|-------|---------------------------|
| $\lambda_{peak}$      | Peak Wavelength          | High Efficiency Red<br>Green | 627<br>565 |            | nm    | I <sub>F</sub> =20mA      |
| $\lambda_D$ [1]       | Dominant Wavelength      | High Efficiency Red<br>Green | 625<br>568 |            | nm    | I <sub>F</sub> =20mA      |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | High Efficiency Red<br>Green | 45<br>30   |            | nm    | I <sub>F</sub> =20mA      |
| C                     | Capacitance              | High Efficiency Red<br>Green | 15<br>15   |            | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub> [2]    | Forward Voltage          | High Efficiency Red<br>Green | 2<br>2.2   | 2.5<br>2.5 | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>        | Reverse Current          | High Efficiency Red<br>Green |            | 10<br>10   | uA    | V <sub>R</sub> = 5V       |

### Notes:

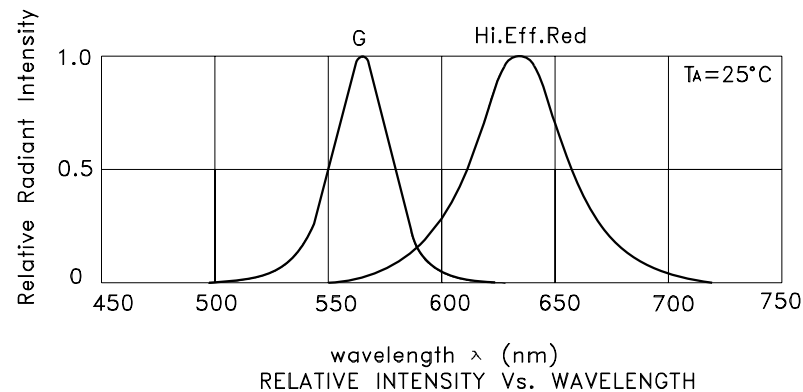
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

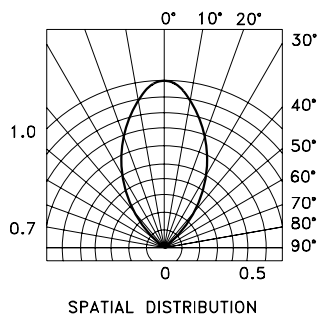
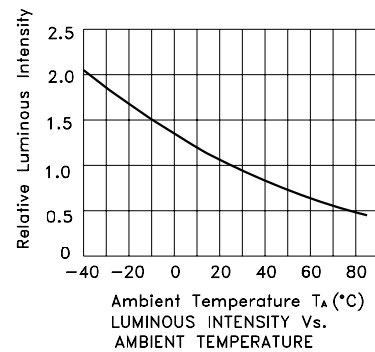
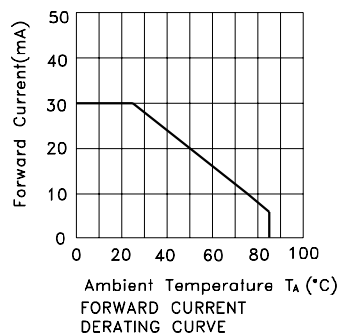
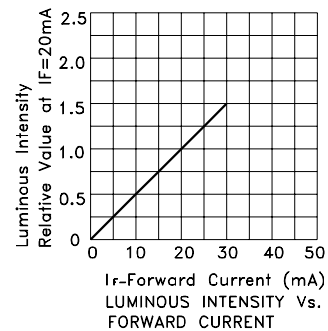
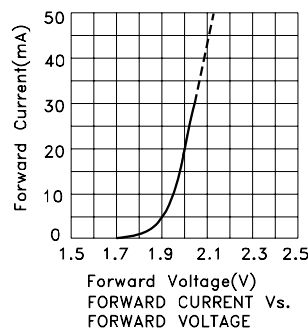
| Parameter                       | High Efficiency Red | Green | Units |
|---------------------------------|---------------------|-------|-------|
| Power dissipation               | 75                  | 62.5  | mW    |
| DC Forward Current              | 30                  | 25    | mA    |
| Peak Forward Current [1]        | 160                 | 140   | 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:

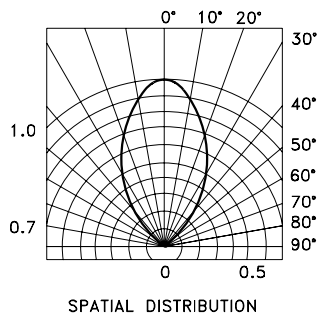
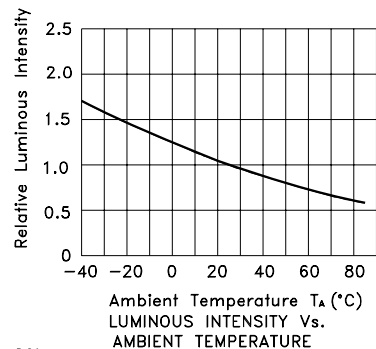
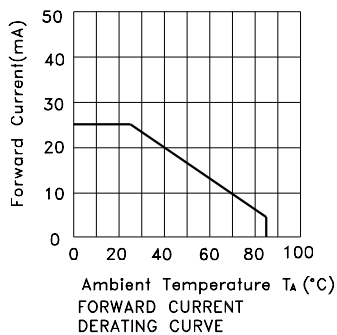
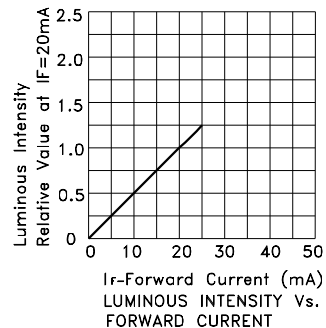
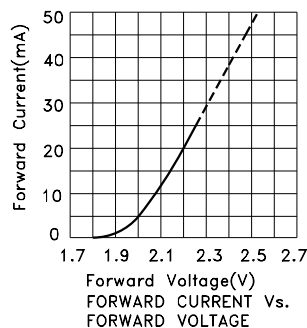
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 2mm below package base.
3. 5mm below package base.



## WP130WDT/EGW High Efficiency Red

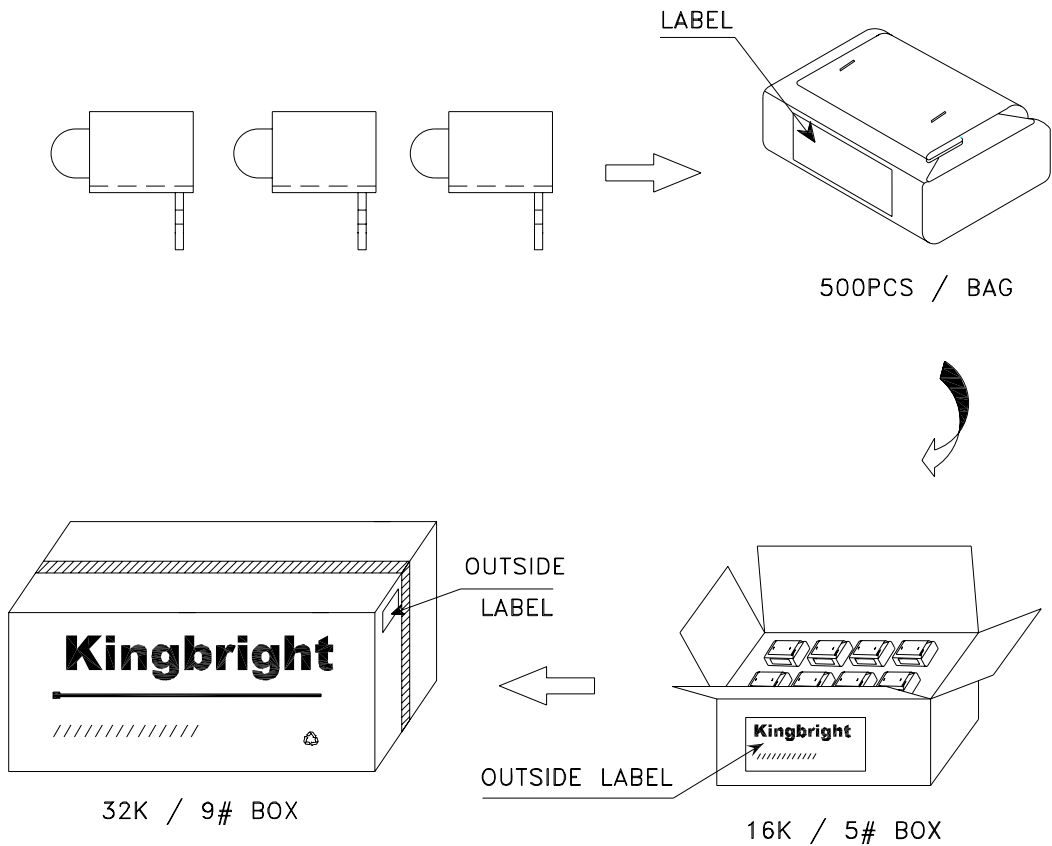


## Green



## PACKING & LABEL SPECIFICATIONS

WP130WDT/EGW



|                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| <b>Kingbright</b>                                                                                        |          |
| Q.C.                                                                                                     |          |
| TYPE NO : WP130WDTxxx                                                                                    |          |
| QUANTITY : 500 pcs                                                                                       |          |
| S/N : XX                                                                                                 | CODE: XX |
| LOT NO : <br>XX-XXXXX |          |
| RoHS Compliant                                                                                           |          |