

WP443HDT

BRIGHT RED

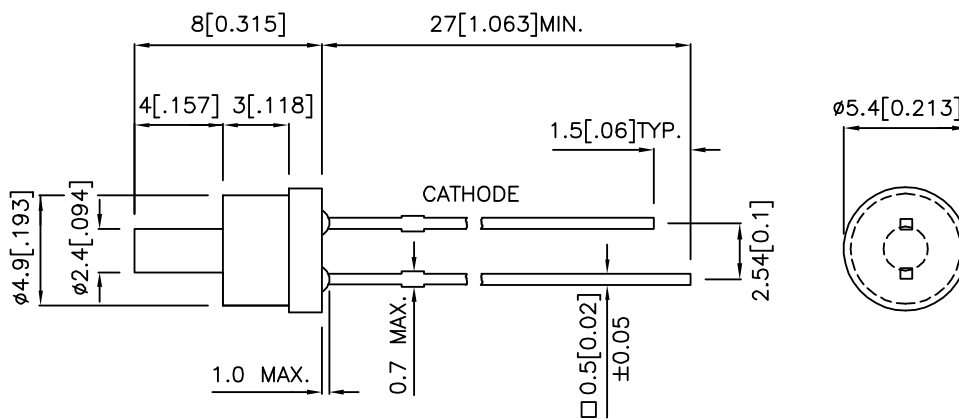
### Features

- LOW POWER CONSUMPTION.
- I.C.COMPTATIBLE.
- LONG LIFE - SOLID STATE RELIABILITY.
- FITS 2.4mm HOLE IN PANEL UP TO 4mm THICK.
- 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  $\pm 0.25$  (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)<br>@ 10mA |      | Viewing<br>Angle |
|----------|------------------|--------------|--------------------|------|------------------|
|          |                  |              | Min.               | Typ. | 2θ1/2            |
| WP443HDT | BRIGHT RED (GaP) | RED DIFFUSED | 0.4                | 2    | 100°             |

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

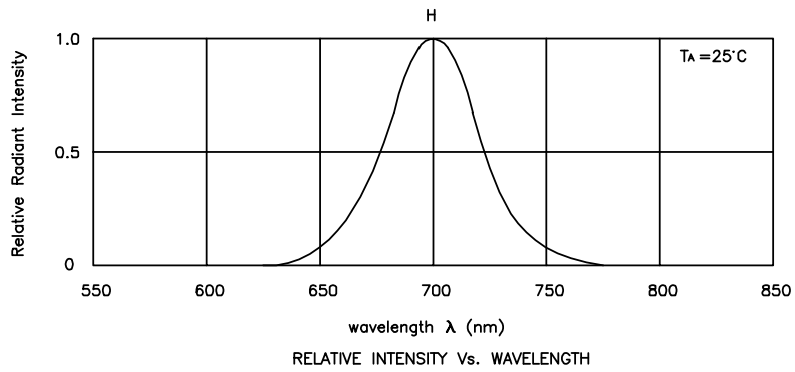
| Symbol | Parameter                | Device     | Typ. | Max. | Units | Test Conditions |
|--------|--------------------------|------------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Bright Red | 700  |      | nm    | IF=20mA         |
| λD     | Dominant Wavelength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

## Absolute Maximum Ratings at TA=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 |       |

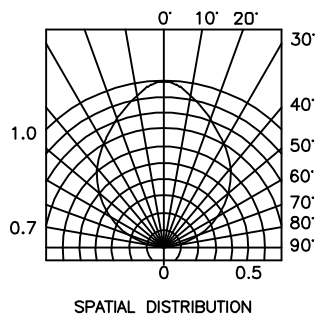
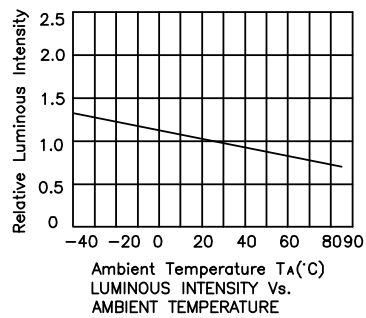
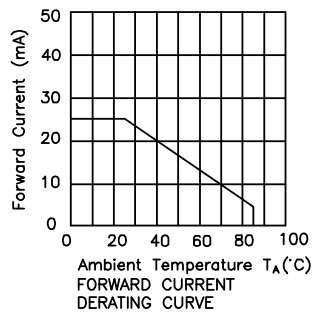
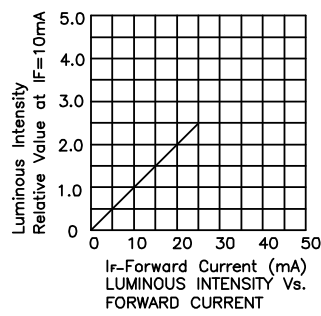
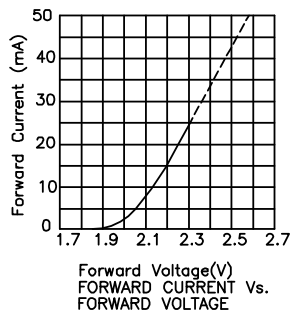
Notes:

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



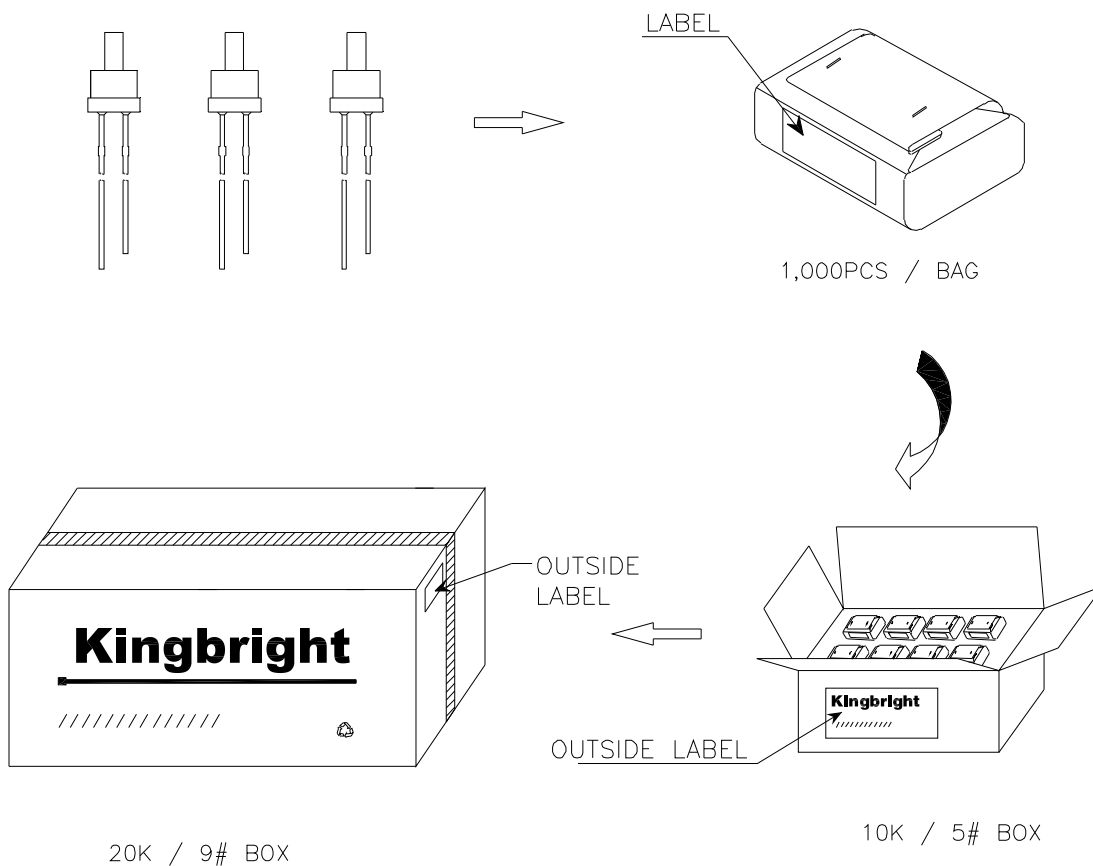
## Bright Red


## WP443HDT



## PACKING & LABEL SPECIFICATIONS

## WP443HDT



|   |                              |
|---|------------------------------|
| <b>Kingbright</b>   |                              |
| Q.C.  | QC<br>xxx xx. 2005<br>PASSED |
| TYPE NO : WP443XXX  |                              |
| QUANTITY : 1,000 pcs  |                              |
| S/N : XXX   | CODE: XX                     |
| LOT NO: <br>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.