

WP1553HDT

BRIGHT RED

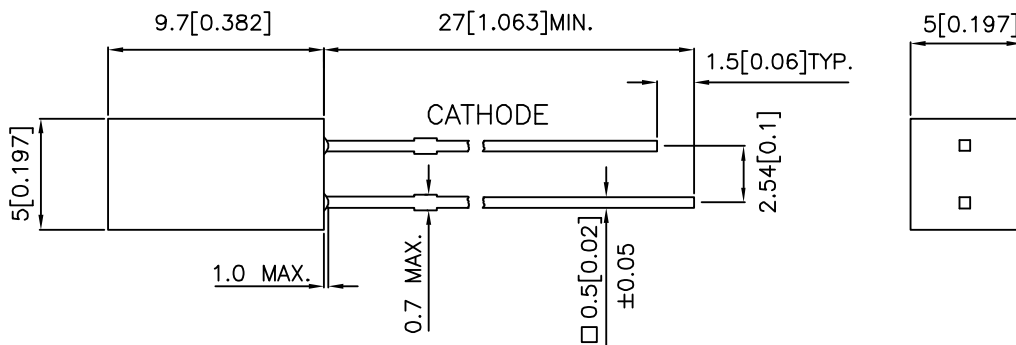
### Features

- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- RELIABLE AND RUGGED.
- EXCELLENT UNIFORMITY OF LIGHT OUTPUT.
- IDEAL AS FLUSH MOUNTED PANEL INDICATORS.
- 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  $\pm 0.25$  (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>@ 10 mA |      | Viewing<br>Angle |
|-----------|------------------|--------------|---------------------|------|------------------|
|           |                  |              | Min.                | Typ. | θ1/2             |
| WP1553HDT | BRIGHT RED (GaP) | RED DIFFUSED | 0.4                 | 1    | 110°             |

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 T<sub>A</sub>=25°C

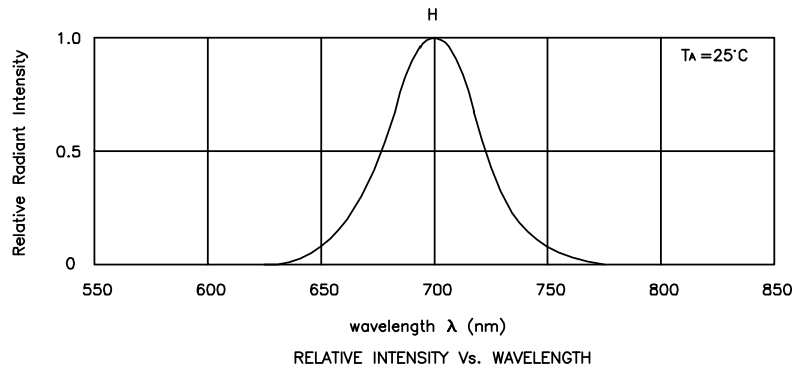
| Symbol            | Parameter                | Device     | Typ. | Max. | Units | Test Conditions           |
|-------------------|--------------------------|------------|------|------|-------|---------------------------|
| λ <sub>peak</sub> | Peak Wavelength          | Bright Red | 700  |      | nm    | I <sub>F</sub> =20mA      |
| λ <sub>D</sub>    | Dominant Wavelength      | Bright Red | 660  |      | nm    | I <sub>F</sub> =20mA      |
| Δλ <sub>1/2</sub> | Spectral Line Half-width | Bright Red | 45   |      | nm    | I <sub>F</sub> =20mA      |
| C                 | Capacitance              | Bright Red | 40   |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub>    | Forward Voltage          | Bright Red | 2.25 | 2.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>    | Reverse Current          | Bright Red |      | 10   | uA    | V <sub>R</sub> = 5V       |

## Absolute Maximum Ratings at T<sub>A</sub>=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 |       |

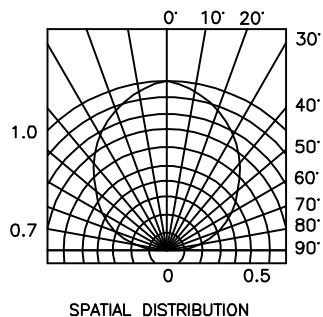
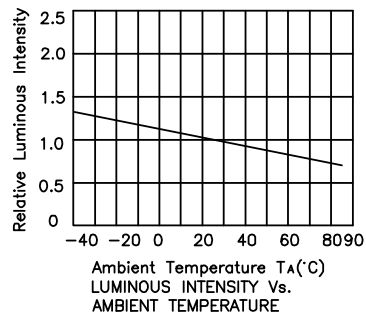
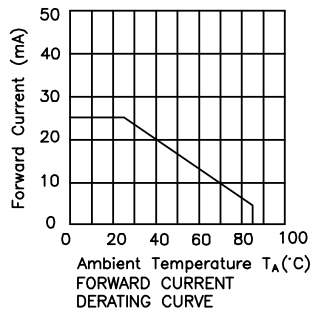
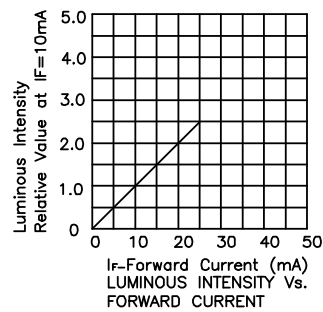
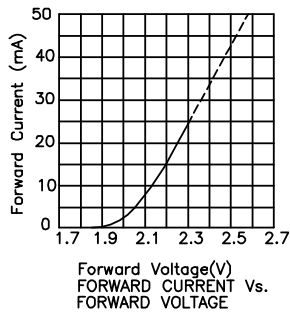
Notes:

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



**Bright Red**

**WP1553HDT**



**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.