

L-1503ID

HIGH EFFICIENCY RED

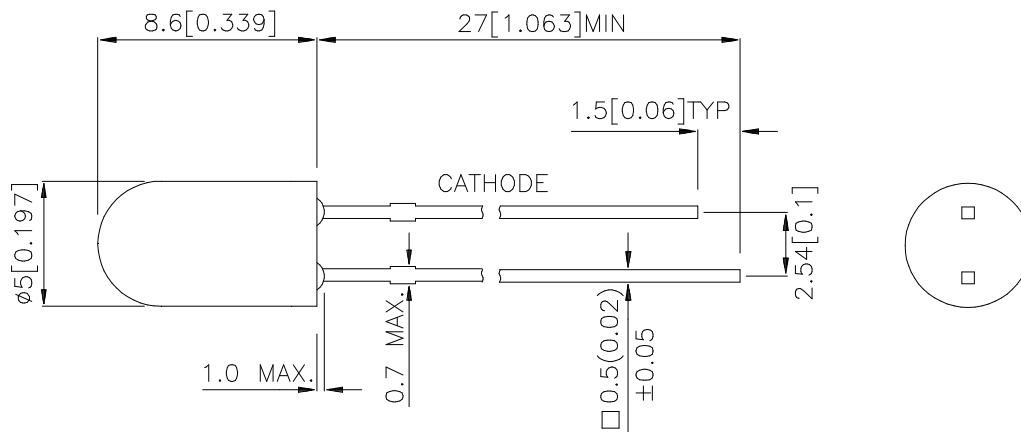
Features

- LOW POWER CONSUMPTION.
- VERSATILE MOUNTING ON P.C. BOARD OR PANEL.
- T-1 3/4 DIAMETER FLANGELESS PACKAGE.
- RELIABLE AND RUGGED.
- 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 lead emerge from the package.
4. Specifications are subject to change without notice.

Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 10mA | | Viewing Angle |
|----------|---------------------------------|--------------|--------------------|------|------------------|
| | | | Min. | Typ. | 2 θ 1/2 |
| L-1503ID | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED | 8 | 30 | 60° |

Note:

1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at T_A=25°C

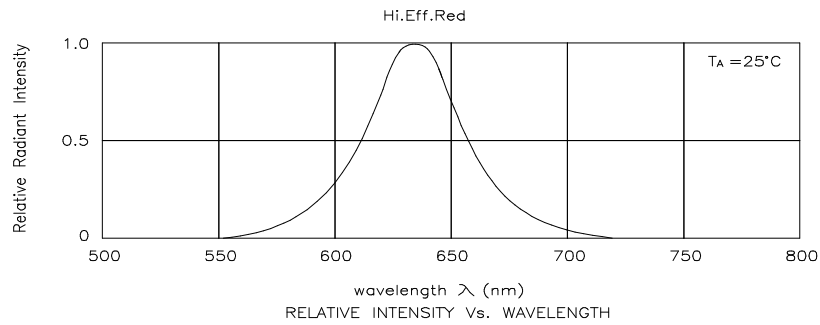
| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|---------------------|------|------|-------|---------------------------|
| λ_{peak} | Peak Wavelength | High Efficiency Red | 627 | | nm | I _F =20mA |
| λ_D | Dominant Wavelength | High Efficiency Red | 625 | | nm | I _F =20mA |
| $\Delta\lambda_{1/2}$ | 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 T_A=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 | |

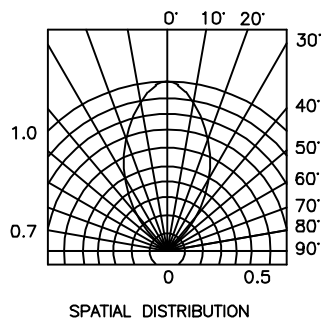
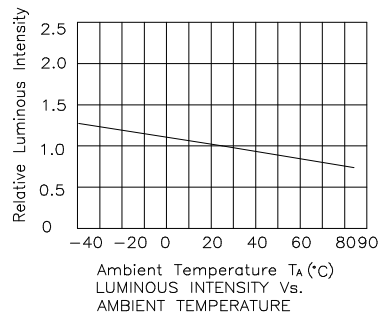
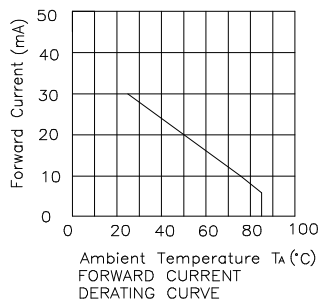
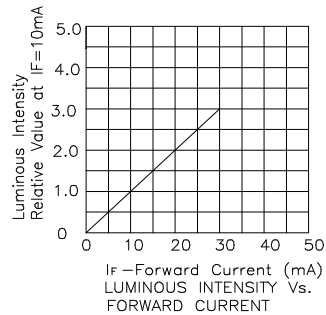
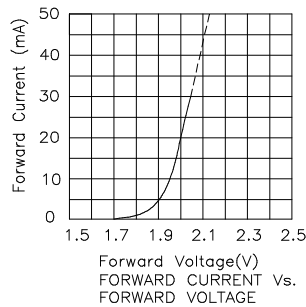
Notes:

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



High Efficiency Red

L-1503ID



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: $\pm 1\text{nm}$
2. Luminous Intensity: $\pm 15\%$
3. Forward Voltage: $\pm 0.1\text{V}$

Note: Accuracy may depend on the sorting parameters.