

Part Number: L-7113EC

HIGH EFFICIENCY RED

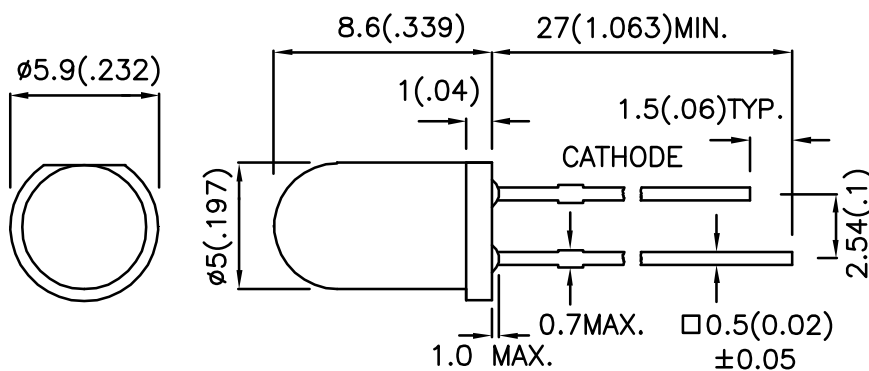
### Features

- LOW POWER CONSUMPTION.
- POPULAR T-1 3/4 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.
- 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) [2]<br>@ 10 mA |      | Viewing<br>Angle [1] |
|----------|---------------------------------|-------------|-------------------------|------|----------------------|
|          |                                 |             | Min.                    | Typ. | 2θ1/2                |
| L-7113EC | HIGH EFFICIENCY RED (GaAsP/GaP) | WATER CLEAR | 28                      | 80   | 20°                  |

Notes:

1. θ1/2 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 |
|--------|--------------------------|---------------------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | High Efficiency Red | 627  |      | nm    | IF=20mA         |
| λD [1] | Dominant Wavelength      | High Efficiency Red | 625  |      | nm    | IF=20mA         |
| Δλ1/2  | Spectral Line Half-width | High Efficiency Red | 45   |      | nm    | IF=20mA         |
| C      | Capacitance              | High Efficiency Red | 15   |      | pF    | VF=0V;f=1MHz    |
| VF [2] | Forward Voltage          | High Efficiency Red | 2    | 2.5  | V     | IF=20mA         |
| IR     | Reverse Current          | High Efficiency Red |      | 10   | uA    | VR = 5V         |

Notes:

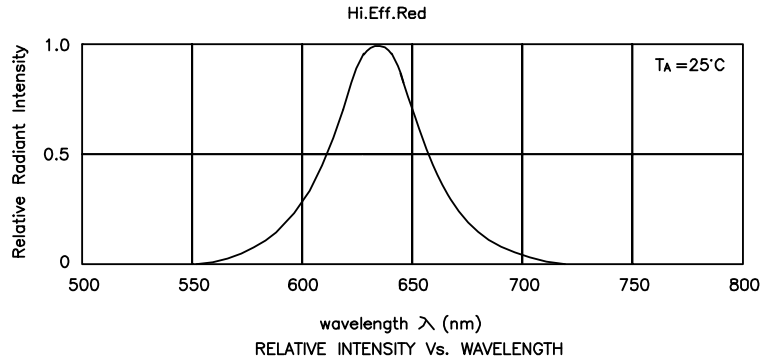
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

| Parameter                     | High Efficiency Red | Units |
|-------------------------------|---------------------|-------|
| Power dissipation             | 75                  | 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.



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