

## GHB-3M40D-Y

### Features

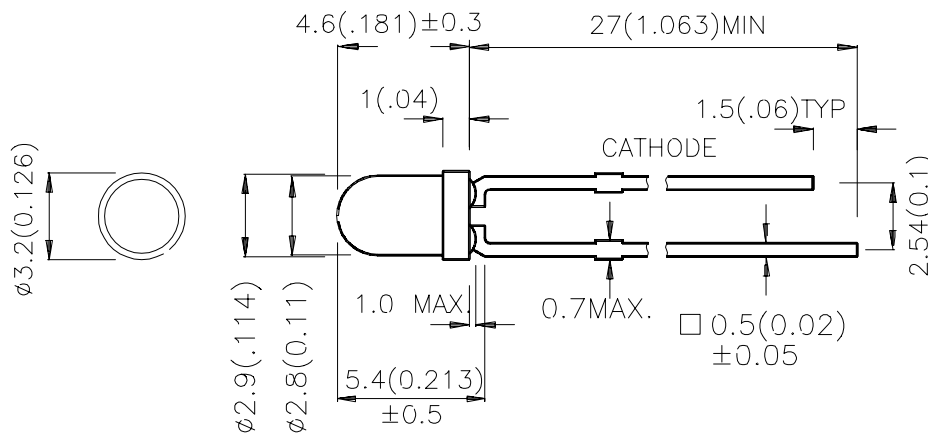
- ▲ LOW POWER CONSUMPTION.
- ▲ POPULAR T-1 DIAMETER PACKAGE.
- ▲ GENERAL PURPOSE LEADS.
- ▲ RELIABLE AND RUGGED.
- ▲ LONG LIFE - SOLID STATE RELIABILITY.

### Description

The Super Bright Yellow source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

### T-1 (3mm) SOLID LED LAMP

### Package Dimensions



### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $.25 (0.01)$  unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No.    | Dice                          | Lens Type       | Iv (mcd)<br>@ 20 mA |      | Viewing<br>Angle |
|-------------|-------------------------------|-----------------|---------------------|------|------------------|
|             |                               |                 | Min.                | Typ. |                  |
| GHB-3M40D-Y | SUPER BRIGHT YELLOW (InGaAlP) | YELLOW DIFFUSED | 110                 | 250  | 40 °             |

Note:

1 1/2 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

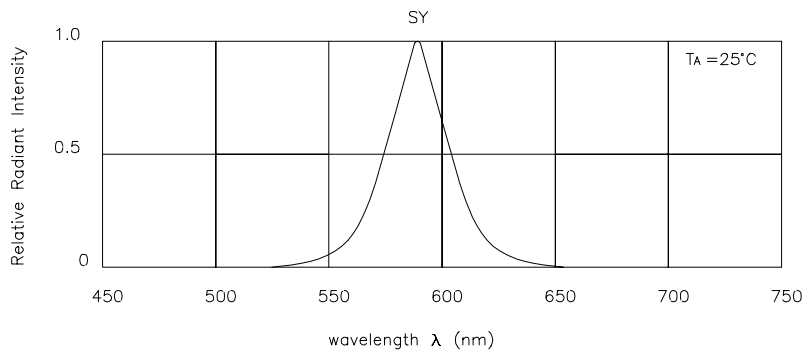
| Symbol         | Parameter                | Device              | Typ. | Max. | Units | Test Conditions           |
|----------------|--------------------------|---------------------|------|------|-------|---------------------------|
| peak           | Peak Wavelength          | Super Bright Yellow | 590  |      | nm    | I <sub>F</sub> =20mA      |
| D              | Dominate Wavelength      | Super Bright Yellow | 588  |      | nm    | I <sub>F</sub> =20mA      |
| 1/2            | Spectral Line Half-width | Super Bright Yellow | 28   |      | nm    | I <sub>F</sub> =20mA      |
| C              | Capacitance              | Super Bright Yellow | 25   |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub> | Forward Voltage          | Super Bright Yellow | 2.0  | 2.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub> | Reverse Current          | Super Bright Yellow |      | 10   | uA    | V <sub>R</sub> = 5V       |

## Absolute Maximum Ratings at T<sub>A</sub>=25 C

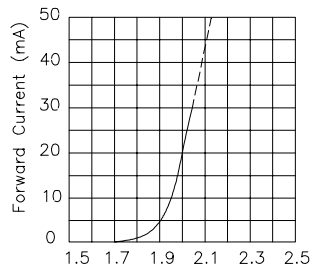
| Parameter                     | Super Bright Yellow | Units |
|-------------------------------|---------------------|-------|
| Power dissipation             | 125                 | mW    |
| DC Forward Current            | 30                  | mA    |
| Peak Forward Current [1]      | 150                 | mA    |
| Reverse Voltage               | 5                   | V     |
| Operating/Storage Temperature | -40 C To +85 C      |       |
| Lead Solder Temperature [2]   | 260 C For 5 Seconds |       |

Notes:

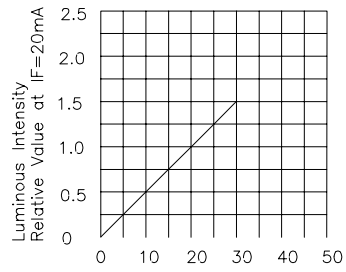
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.



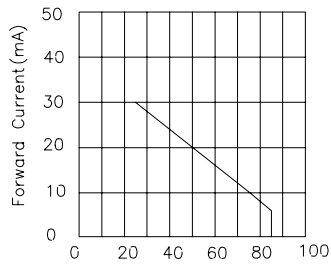
RELATIVE INTENSITY Vs. WAVELENGTH



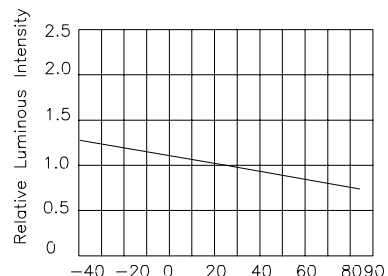
FORWARD CURRENT Vs. FORWARD VOLTAGE



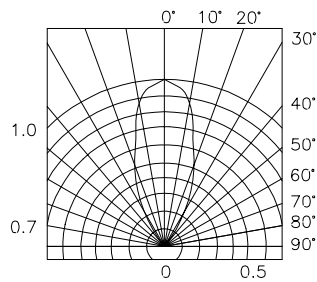
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION