

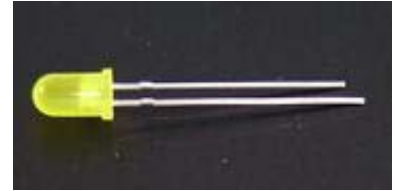
BEELED

BEELED -

MODEL: 5003Y1D-EHB-A

Features

- High efficiency
- Low Power consumption
- General purpose leads
- Selected minimum intensities
- Available on tape and reel
- Pb free



Descriptions

- The series is specially designed for applications requiring higher brightness
- The LED lamps are available with different colors, intensities, epoxy colors, etc
- Superior performance in outdoor environment

Usage Notes:

- Surge will damage the LED
- When using LED, it must use a protective resistor in series with DC current about 20mA

Applications

- Status indicators
- Commercial use
- Advertising Signs
- Back lighting

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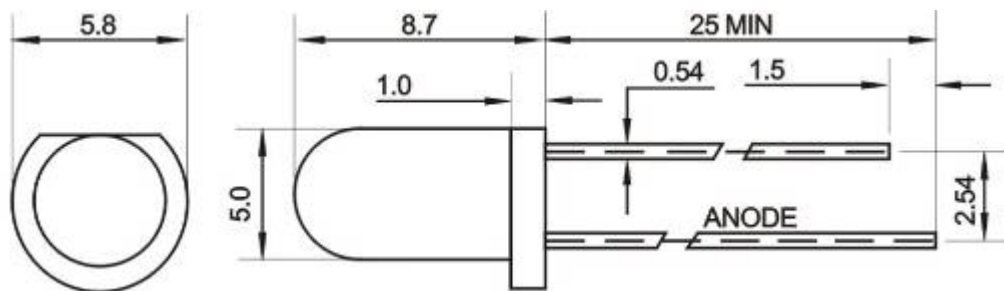
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Device Selection Guide

| LED Part No. | Chip | | Lens Color |
|---------------|----------|---------------|----------------|
| | Material | Emitted Color | |
| 5003Y1D-EHB-A | AlGaInP | Yellow | Color Diffused |

Package Dimensions



Notes:

- Other dimensions are in millimeters, tolerance is 0.25mm except being specified.
- Protruded resin under flange is 1.5mm Max LED.
- Bare copper alloy is exposed at tie-bar portion after cutting.



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Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$)

| Parameter | Symbol | Absolute Maximum Rating | Unit |
|-----------------------|------------------|-------------------------|--------------------|
| Forward Pulse Current | I_{FPM} | 100 | mA |
| Forward Current | I_{FM} | 30 | mA |
| Reverse Voltage | V_{R} | 5 | V |
| Power Dissipation | P_{D} | 130 | mW |
| Operating Temperature | T_{opr} | -40~+80 | $^{\circ}\text{C}$ |
| Storage Temperature | T_{stg} | -40~+100 | $^{\circ}\text{C}$ |
| Soldering Heat (5s) | T_{sol} | 260 | $^{\circ}\text{C}$ |

Electro-Optical Characteristics ($T_a=25^{\circ}\text{C}$)

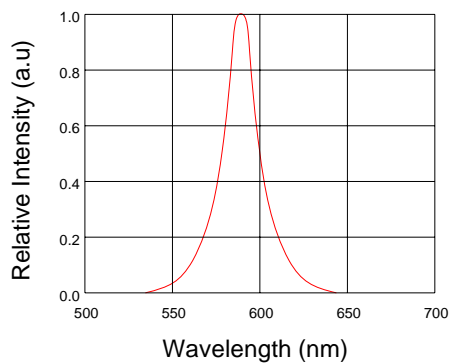
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Condition |
|--------------------------|----------------------|------|------|------|---------------|------------------------------------|
| Luminous Intensity | I_{v} | 100 | 150 | --- | mcd | $I_{\text{F}}=20\text{mA}$ (Note1) |
| Viewing Angle | $2\theta_{1/2}$ | 40 | --- | 60 | Deg | (Note 2) |
| Peak Emission Wavelength | λ_{p} | 580 | 590 | 595 | nm | $I_{\text{F}}=20\text{mA}$ |
| Spectral Line Half-Width | $\Delta\lambda$ | 15 | 20 | 25 | nm | $I_{\text{F}}=20\text{mA}$ |
| Forward Voltage | V_{F} | 1.9 | --- | 2.3 | V | $I_{\text{F}}=20\text{mA}$ |
| Reverse Current | I_{R} | --- | --- | 10 | μA | $V_{\text{R}}=5\text{V}$ |

Note:

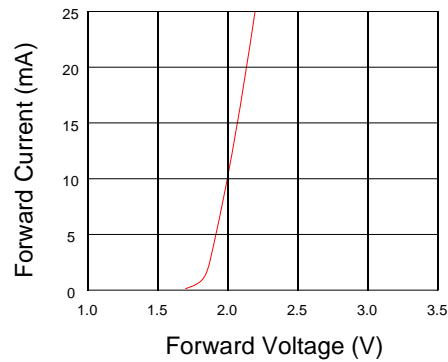
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

Typical Electro-Optical Characteristics Curves

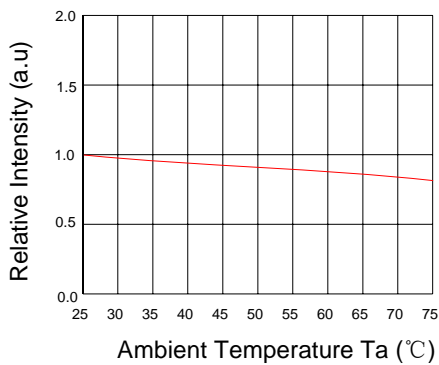
Relative Intensity VS. Wavelength



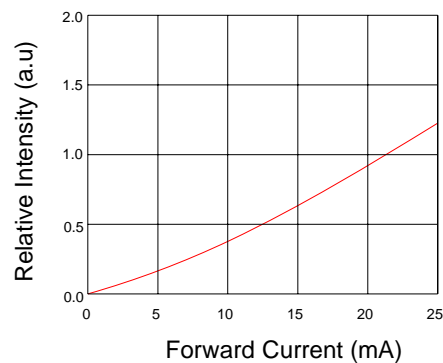
Forward Current VS. Forward Voltage



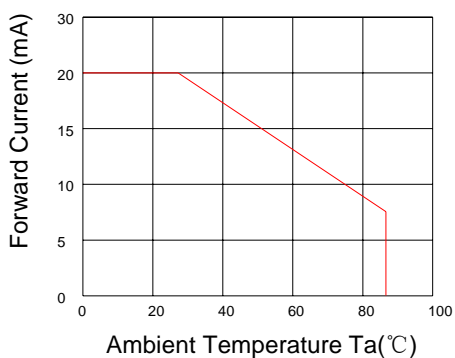
Relative Intensity VS. Ambient Temp



Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics

