

# MEGA BRIGHT LED

## BTL-33BLD-XX-X

### Product Features

- Ultra Bright Blue Color
- High Light Output
- 3mm Diameter Circular Package
- Diffused Lens
- Highly Reliable
- IC Compatible
- Leads without Stand Off

### Applications

- Automotive
- Front Panel Indicator
- Special Lighting
- General Purpose LEDs

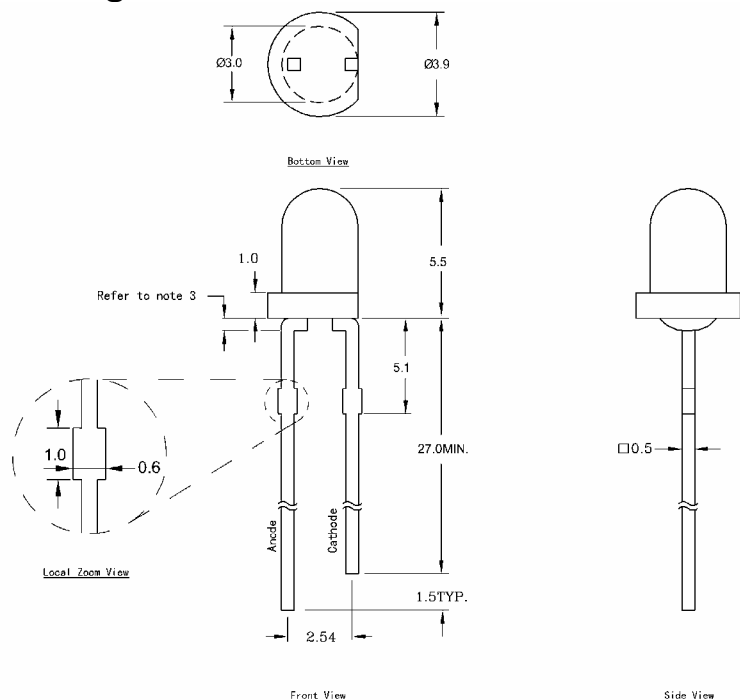


#### WARNING

This range of LEDs is produced with die having a high radiant flux. Care must be taken when viewing the product at close range as the light may be intense enough to cause damage to the human eye.

**Note:** Industry standard procedures regarding static must be observed when handling this product.

### Package Dimension



|      |      |
|------|------|
| inch | 0.01 |
| mm   | 0.25 |

### Optical and Electrical Characteristics at $T_a=25^\circ\text{C}$

| Parameter           | Symbol          | Minimum | Typical | Maximum | Units         | Conditions                      |
|---------------------|-----------------|---------|---------|---------|---------------|---------------------------------|
| Luminous Intensity  | $I_v$           | —       | 100     | —       | mcd           | $I_F = 20\text{mA}$<br>(Note 1) |
| Viewing Angle       | $2\theta_{1/2}$ | —       | 60      | —       | deg           | $I_F = 20\text{mA}$             |
| Dominant Wavelength | $\lambda_D$     | 460     | 465     | 475     | nm            | $I_F = 20\text{mA}$<br>(Note 2) |
| DC Forward Voltage  | $V_F$           | 2.8     | 3.5     | 4.0     | V             | $I_F = 20\text{mA}$             |
| DC Reverse Current  | $I_R$           | 0       | —       | 10      | $\mu\text{A}$ | $V_R=5\text{V}$                 |

#### Notes:

1. Light intensity measures the light sensing response standard using chromatic meter. Refer to the CIE eye-response curve set by International Lighting committee. Tolerance of minimum and maximum intensity =  $\pm 15\%$
2. Wavelength range can be selected from the bin selection table. Tolerance of minimum and maximum =  $\pm 2\text{nm}$
3. These products are sensitive to static electricity and care must be fully taken when handling products

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Absolute Maximum Ratings at  $T_a=25^{\circ}\text{C}$

| Symbol                                                   | Parameter                                    | Max.                                   | Unit               |
|----------------------------------------------------------|----------------------------------------------|----------------------------------------|--------------------|
| $P_D$                                                    | Power Rating                                 | 100                                    | mW                 |
| $V_R$                                                    | Reverse Voltage ( $I_R=10\mu\text{A}$ )      | 5                                      | V                  |
| $I_F$                                                    | Continuous Forward Current                   | 30                                     | mA                 |
| $I_{FP}$                                                 | Peak Forward Current (0.1 duty cycle @ 1kHz) | 100                                    | mA                 |
| $T_{opr}$                                                | Operating Temperature Range                  | $-35 \sim +80$                         | $^{\circ}\text{C}$ |
| $T_{stg}$                                                | Storage Temperature Range                    | $-40 \sim +100$                        | $^{\circ}\text{C}$ |
| Lead Soldering Temperature [1.6mm (0.063inch) from body] |                                              | 260 $^{\circ}\text{C}$ - max 5 seconds |                    |

Wavelength and Brightness Selection

### BTL-33BLD-XX-X

#### Wavelength Bin Selection

| Bin | Blue (nm) |
|-----|-----------|
| B5  | 460~465   |
| B6  | 465~470   |
| B7  | 470~475   |
| XX  | 460~475   |

#### Brightness Bin Selection

| Bin | Range(mcd) |
|-----|------------|
| C   | 45~60      |
| D   | 60~80      |
| E   | 80~110     |
| F   | 110~140    |

Packaging Options

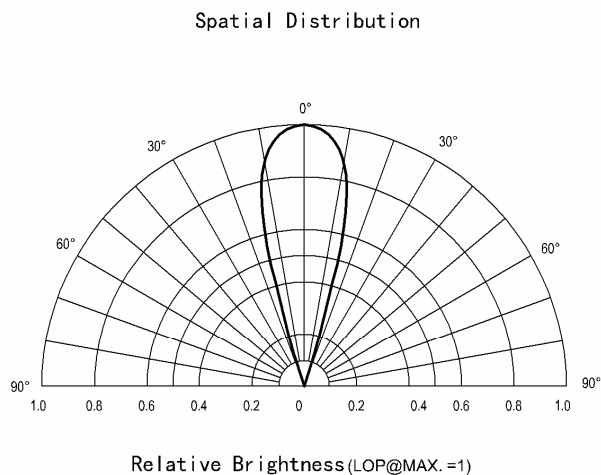
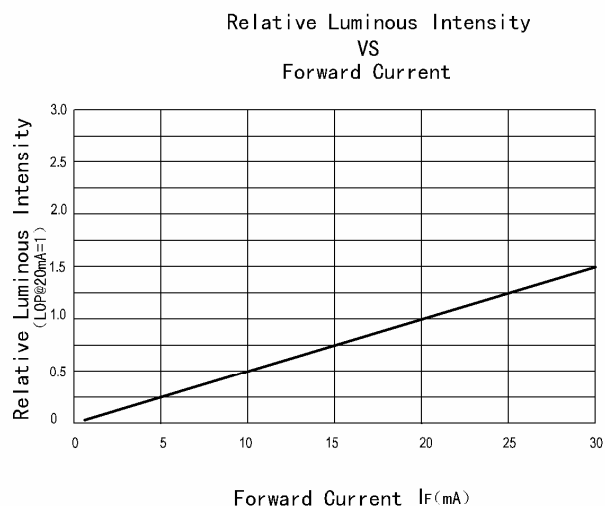
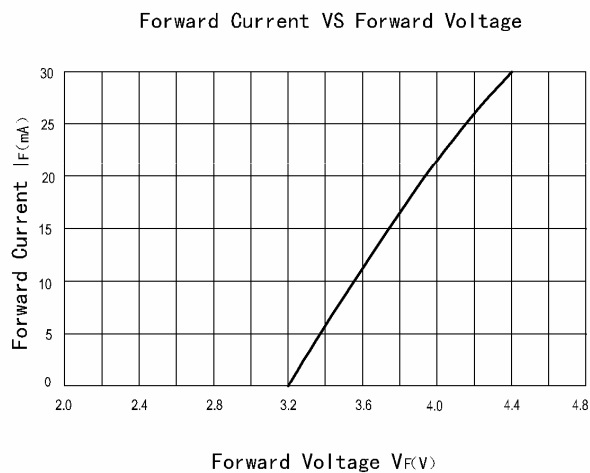
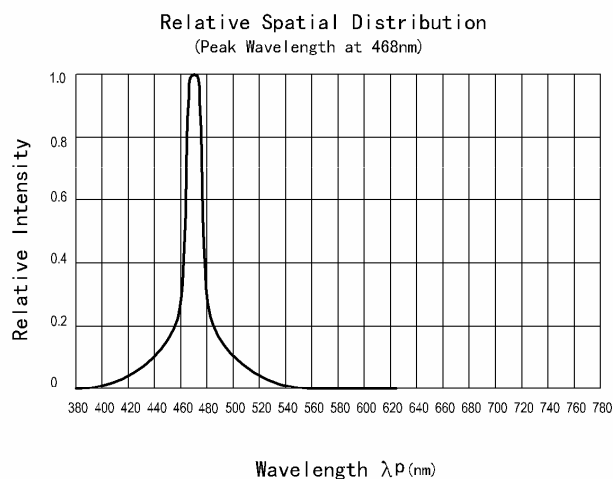
Standard: 1000 pc bulk pack

Optional: Tape and Reel (Please specify when order)

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### BTL-33BLD-XX-X

Typical Electro-Optical Characteristics Curves at  $T_a=25^\circ\text{C}$



BT-Rev. 1.0a

Specifications are subject to change without notice.

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