

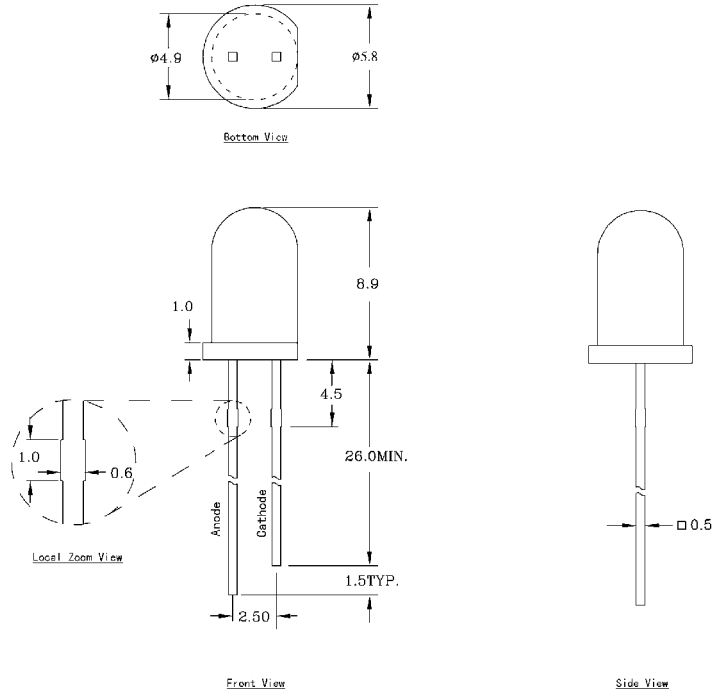
# MEGA BRIGHT LED

## BTL-52DRC-XX-X

### Product Features


- Ultra Bright Deep Red Color
- High Light Output
- 5mm Diameter Circular Package
- Water Clear Lens
- Highly Reliable
- IC Compatible
- Leads without Stand Off

### Package Dimension



### 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.

Tolerance:  $\pm \frac{\text{inch}}{\text{mm}}$  Unit:  $\pm \frac{0.01}{0.25}$

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

| Parameter           | Symbol          | Minimum | Typical | Maximum | Units         | Conditions                      |
|---------------------|-----------------|---------|---------|---------|---------------|---------------------------------|
| Luminous Intensity  | $I_v$           | —       | 1500    | —       | mcd           | $I_F = 20\text{mA}$<br>(Note 1) |
| Viewing Angle       | $2\theta_{1/2}$ | —       | 30      | —       | deg           | $I_F = 20\text{mA}$             |
| Dominant Wavelength | $\lambda_D$     | 645     | 652     | 660     | nm            | $I_F = 20\text{mA}$<br>(Note 2) |
| DC Forward Voltage  | $V_F$           | —       | 1.9     | 2.5     | 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



**DB LECTRO**  
COMPOSANTS ÉLECTRONIQUES  
ELECTRONIC COMPONENTS

## MEGA BRIGHT LED

### BTL-52DRC-XX-X

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-52DRC-XX-X

#### Wavelength Bin Selection

| Bin       | Deep Red (nm) |
|-----------|---------------|
| <b>R2</b> | 645~650       |
| <b>R3</b> | 650~655       |
| <b>R4</b> | 655~660       |
| <b>XX</b> | 645~660       |

#### Brightness Bin Selection

| Bin      | Range(mcd) |
|----------|------------|
| <b>O</b> | 1140~1485  |
| <b>P</b> | 1485~1930  |
| <b>Q</b> | 1930~2510  |

Packaging Options

Standard: 1000 pc bulk pack

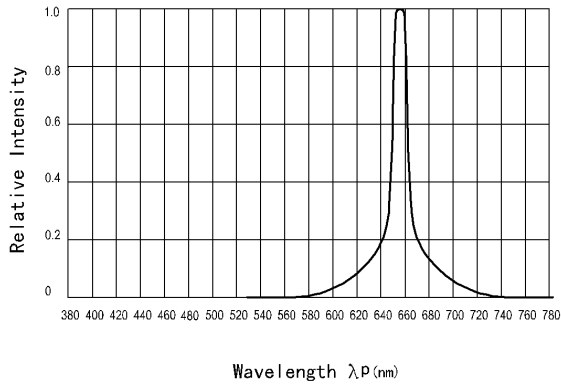
Optional: Tape and Reel (Please specify when order)

# MEGA BRIGHT LED

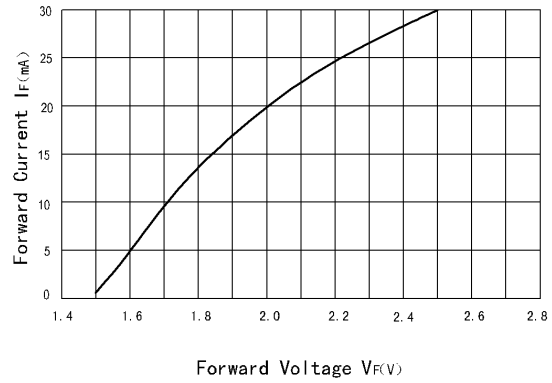
## BTL-52DRC-XX-X

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

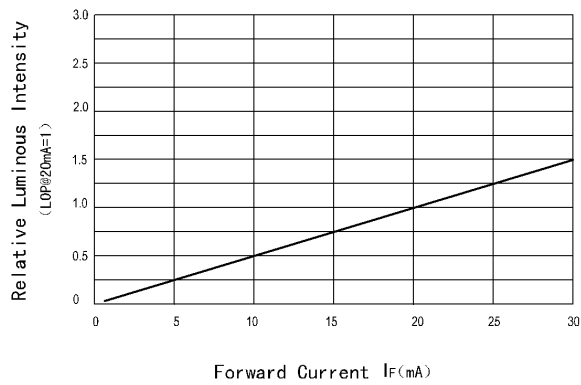
Relative Spatial Distribution



Forward Current VS Forward Voltage



Relative Luminous Intensity  
VS  
Forward Current



Spatial Distribution

