

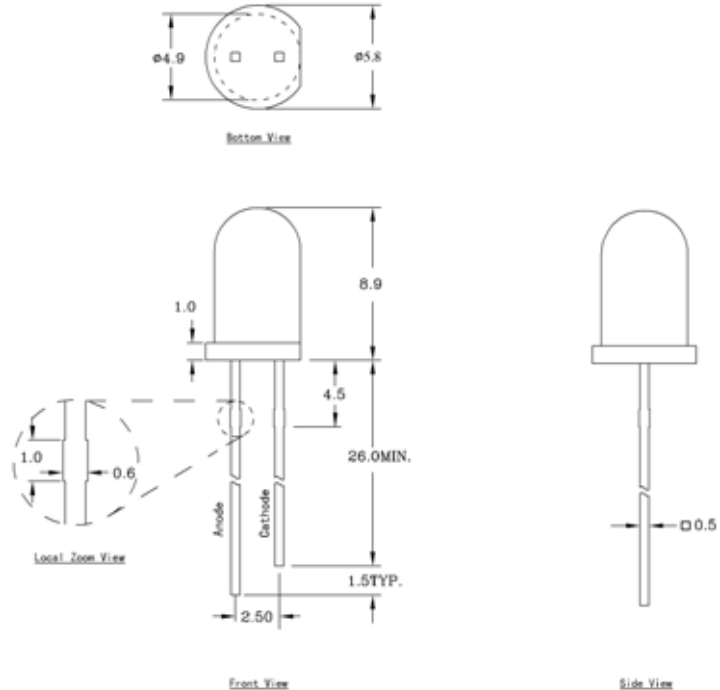
MEGA BRIGHT LED

BTL-51NRC-XX-X

Product Features

- Ultra Bright Normal 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	—	4000	—	mcd	$I_F = 20\text{mA}$ (Note 1)
Viewing Angle	$2\theta_{1/2}$	—	15	—	deg	$I_F = 20\text{mA}$
Peak Wavelength	λ_D	620	628	635	nm	$I_F = 20\text{mA}$ (Note 2)
DC Forward Voltage	V_F	—	1.9	2.5	V	$I_F = 20\text{mA}$
DC Reverse Current	I_R	0	—	10	μA	$V_R=5\text{V}$

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

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Wavelength Bin Selection

Bin	Normal Red (nm)
O1	620~625
O2	625~630
O3	630~635
XX	620~635

Brightness Bin Selection

Bin	Range(mcd)
R	2510~3265
S	3265~4245
T	4245~5515

Packaging Options

Standard: 1000 pc bulk pack

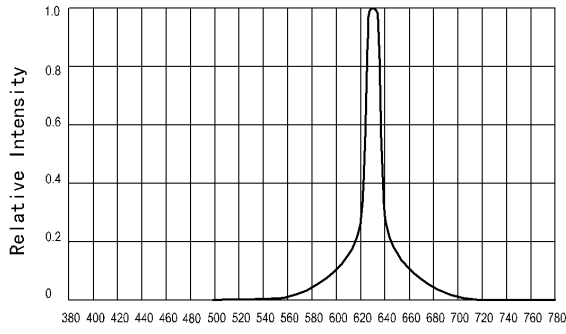
Optional: Tape and Reel (Please specify when order)

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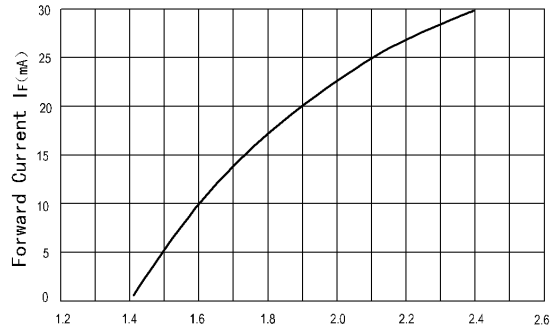
Typical Electro-Optical Characteristics Curves at $T_a=25^\circ\text{C}$

Relative Spatial Distribution



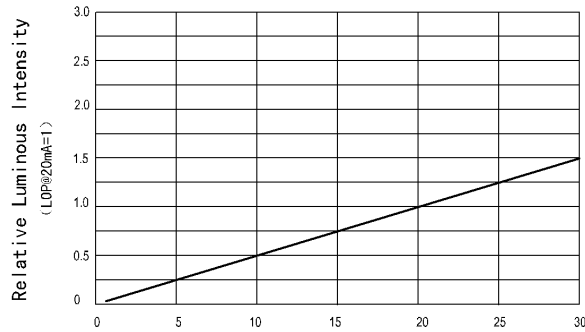
Wavelength λ_p (nm)

Forward Current VS Forward Voltage



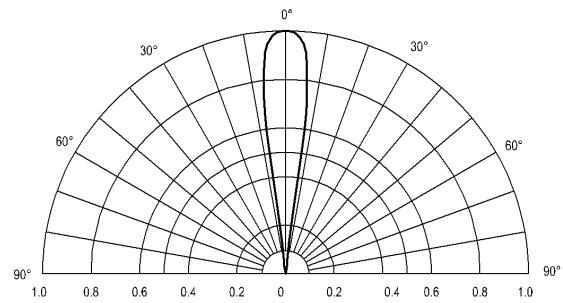
Forward Voltage V_F (V)

Relative Luminous Intensity
VS
Forward Current



Forward Current I_F (mA)

Spatial Distribution



Relative Brightness (LOP@MAX.=1)