

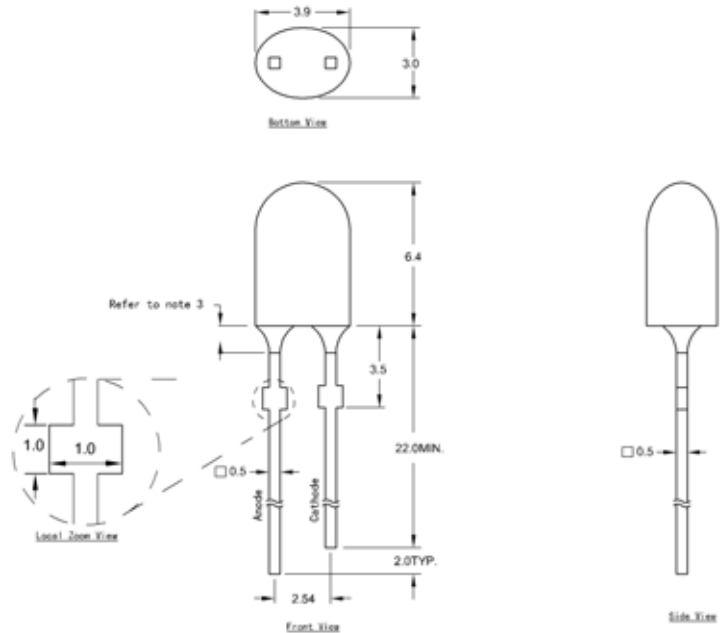
# MEGA BRIGHT LED

## BTL-46NRCS-XX-X

### Product Features

- Ultra Bright Normal Red Color
- High Light Output
- 4X3mm Diameter Elliptical Package
- Water Clear Lens
- Highly Reliable
- IC Compatible
- Leads with Stand Off

### Package Dimension



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

### Applications

- Full Color Display
- 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.

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

Parameter	Symbol	Minimum	Typical	Maximum	Units	Conditions
Luminous Intensity	$I_v$	—	150	—	mcd	$I_F = 20\text{mA}$ (Note 1)
Viewing Angle	$2\theta_{1/2}$ H-H	—	120	—	deg	$I_F = 20\text{mA}$
	$2\theta_{1/2}$ V-V	—	55	—		
Dominant Wavelength	$\lambda_D$	620	630	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	$\mu\text{A}$	$V_R=5\text{V}$

**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



## MEGA BRIGHT LED

### BTL-46NRCS-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-46NRCS-XX-X

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)
G	140~185
H	185~240
I	240~310

Packaging Options

Standard: 1000 pc bulk pack

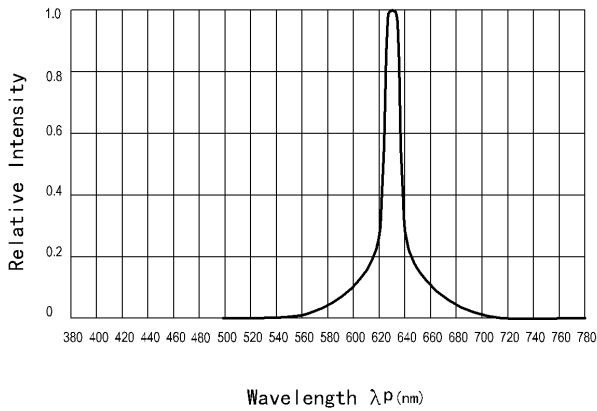
Optional: Tape and Reel (Please specify when order)

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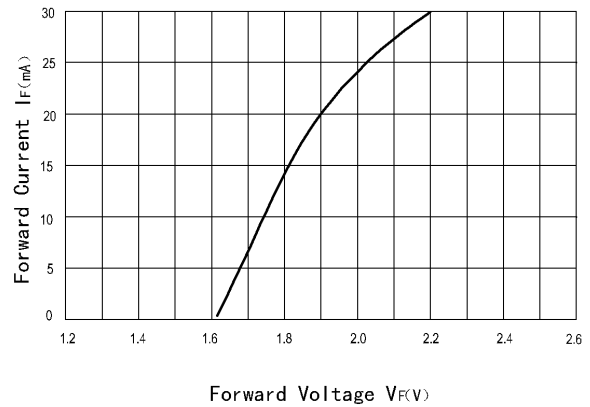
## BTL-46NRCS-XX-X

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

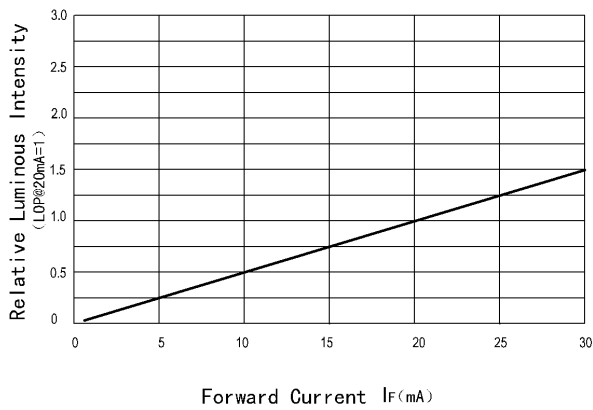
Relative Spatial Distribution



Forward Current VS Forward Voltage



Relative Luminous Intensity  
VS  
Forward Current



Spatial Distribution

