



PBL01NBT-C0

LIGHT EMITTING DIODE

BLUE HIGH POWER LED

■ FEATURES

- * Very long operating life
- * Energy efficient

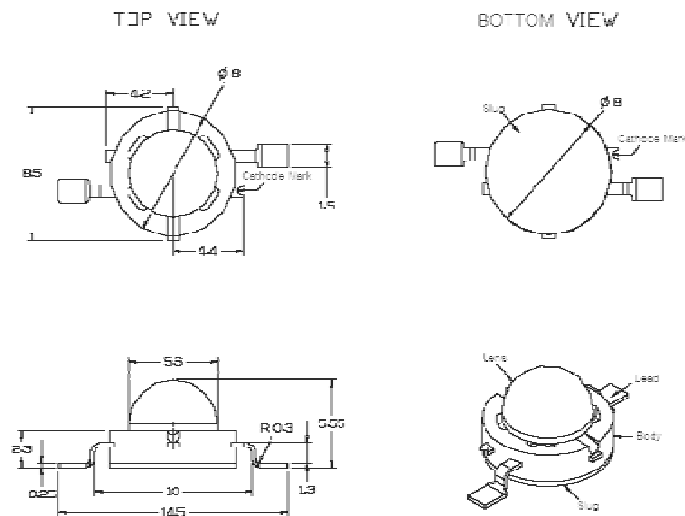
■ APPLICATIONS

- * Automotive exterior and interior lighting
- * Architectural lighting
- * Electronic signs and signals

■ MECHANICAL DIMENSIONS

Note: Dimensions shown in mm

Dome Type



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LIGHT EMITTING DIODE

■ ORDERING INFORMATION

| |
|-----------------|
| Ordering Number |
| PBL01NBT-C0 |

| | |
|--|---|
| <p>P B L 0 1 N B T - C 0</p> <p>(1)View Angle (2)Lead Frame (3)Lens Type (4)Base Type (5)Watts (6)Color Type (7)Product Type</p> | <p>(1) C0: 120° (2) T: Round (3) B: Helmet (4) N: No Al Base (5) 01: 1w (6) BL: Blue (7) P: Power LED</p> |
|--|---|

■ ABSOLUTE MAXIMUM RATINGS (Ta=25)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|-------------------------------|------------------|-----------|------|
| DC Forward Current | I _F | 350 | mA |
| Forward Pulse Current (Note1) | I _{FP} | 500 | mA |
| Reverse Voltage | V _R | 5 | V |
| Viewing Angle | 2θ1/2 | 120 | ° |
| Operation Temperature | T _{OPR} | -40 ~ +80 | |
| Storage Temperature | T _{STG} | -40 ~ +80 | |

Note: 1. Pulse width 0.1msec max. Duty cycle1/10

2. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

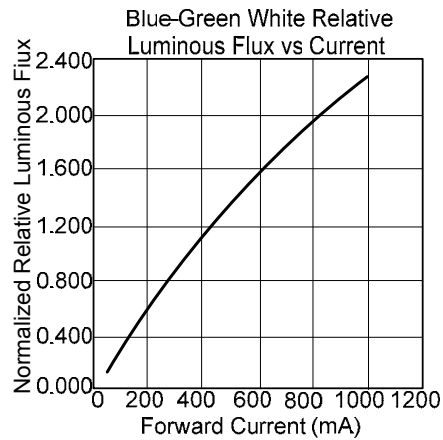
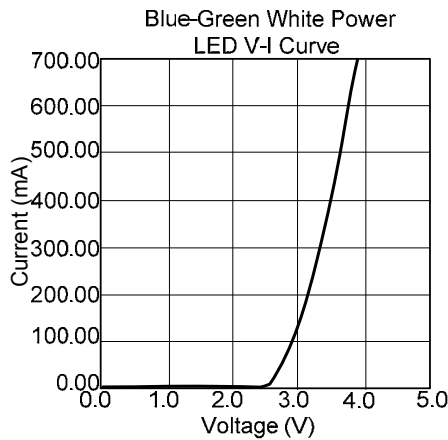
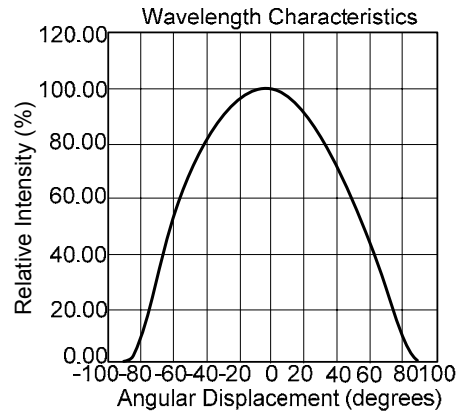
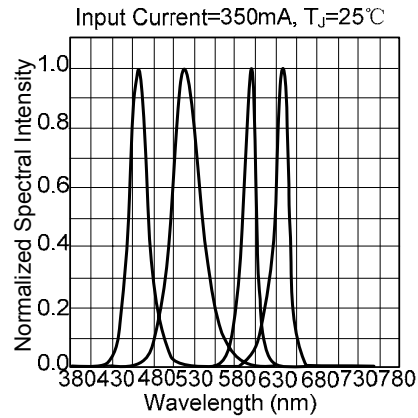
■ ELECTRICAL CHARACTERISTICS

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|---------------------|----------------|-----------------------|-----|-----|-----|------|
| Luminous Flux | L _x | I _F =350mA | 6 | 8 | | lm |
| Forward Voltage | V _F | I _F =350mA | 3.1 | 3.4 | 3.8 | V |
| Reverse Current | I _R | V _R =5V | | | 10 | uA |
| Dominant Wavelength | λD | I _F =350mA | 460 | 465 | 470 | nm |
| Viewing Angle | 2θ1/2 | I _F =350mA | | 120 | | ° |

■ RELIABILITY ITEMS AND CONDITIONS

| NO. | ITEMS | TEST CONDITIONS | NOTE | RESULT |
|-----|-------------------------------------|--|----------------|--------|
| 1 | Resistance to Soldering Heat | 260 ±5 | 10Sec. | Pass |
| 2 | Thermal Shock | -20 ~ 100 10Min. 5Sec. 10Min. | 50Cycles | Pass |
| 3 | Temperature Cycle | -40 25 100 30Min. 5Min. 30Min. | 100Cycles | Pass |
| 4 | Hi-Temp. Storage | 100 | 1000Hrs | Pass |
| 5 | Low-Temp. Storage | -40 | 1000Hrs | Pass |
| 6 | Hi-Temperature/ Hi-Humidity Test | 60 /90%RH | 1000Hrs | Pass |
| 7 | Operating Life | I _F =350mA | 1000Hrs | Pass |
| 8 | Life Time 1 | 500mA@ROOM TEMP | 1000Hrs | Pass |
| 9 | Life Time 2 | 350mA@-40 | 1000Hrs | Pass |
| 10 | ON/OFF Test | IF=700mA Pulse width 0.1msec max. Duty cycle1/10 | 100,000 Cycles | Pass |

■ TYPICAL CHARACTERISTICS



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