



# Bigger Size LED Lamps BL-B Series

## Round Types

| Package                                              | Part No.     | Chip                    |                          | Lens Appearance | Absolute Maximum Ratings |         |         |           | Electro-optical Data(At 20mA) |      |          | Viewing Angle 2 θ 1/2 (deg) | Drawing No. |
|------------------------------------------------------|--------------|-------------------------|--------------------------|-----------------|--------------------------|---------|---------|-----------|-------------------------------|------|----------|-----------------------------|-------------|
|                                                      |              | Material/ Emitted Color | Peak Wave Length λ p(nm) |                 | Δ λ (nm)                 | Pd (mw) | If (mA) | Peak (mA) | Vf (V)                        |      | Iv (mcd) |                             |             |
|                                                      |              |                         |                          |                 |                          |         |         |           | Typ                           | Max  | Typ.     |                             |             |
| Round ϕ 8.0                                          | BL-B5139     | GaP/GaP/ Bright Red     | 700                      | Red Diffused    | 90                       | 40      | 15      | 50        | 2.2                           | 2.6  | 20.0     | 45                          | L-137       |
|                                                      | BL-B4539     | GaAsP/GaP/ Hi-Eff Red   | 635                      |                 | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 50.0     |                             |             |
|                                                      | BL-B6139     | GaAlAs/ SH Red          | 660                      |                 | 20                       | 60      | 30      | 150       | 1.7                           | 2.6  | 100.0    |                             |             |
|                                                      | BL-B2139     | GaP/GaP/ Green          | 568                      | Green Diffused  | 30                       | 80      | 30      | 150       | 2.2                           | 2.6  | 50.0     |                             |             |
|                                                      | BL-BX139     | GaAsP/GaP/Hi-Eff Green  | 568                      |                 | 30                       | 80      | 30      | 150       | 2.2                           | 2.6  | 60.0     |                             |             |
|                                                      | BL-B3139     | GaAsP/GaP/ Yellow       | 585                      | Yellow Diffused | 35                       | 80      | 30      | 150       | 2.1                           | 2.6  | 40.0     | 20                          |             |
|                                                      | BL-B4339     | GaAsP/GaP/ Orange       | 635                      | Water Clear     | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 350.0    |                             |             |
| Round ϕ 8.0                                          | BL-B5139B    | GaP/GaP/ Bright Red     | 700                      | Red Diffused    | 90                       | 40      | 15      | 50        | 2.2                           | 2.6  | 15.0     | 50                          | L-138       |
|                                                      | BL-B4539B    | GaAsP/GaP/ Hi-Eff Red   | 635                      |                 | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 40.0     |                             |             |
|                                                      | BL-B6139B    | GaAlAs/ SH Red          | 660                      |                 | 20                       | 60      | 30      | 150       | 1.7                           | 2.6  | 100.0    |                             |             |
|                                                      | BL-B2139B    | GaP/GaP/ Green          | 568                      | Green Diffused  | 30                       | 80      | 30      | 150       | 2.2                           | 2.6  | 40.0     |                             |             |
|                                                      | BL-BX139B    | GaP/GaP/ Hi-Eff Green   | 568                      |                 | 30                       | 80      | 30      | 150       | 2.2                           | 2.6  | 50.0     |                             |             |
|                                                      | BL-B3139B    | GaAsP/GaP/ Yellow       | 585                      | Yellow Diffused | 35                       | 80      | 30      | 150       | 2.1                           | 2.6  | 30.0     | 25                          |             |
|                                                      | BL-B4339B    | GaAsP/GaP/ Orange       | 635                      | Water Clear     | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 300.0    |                             |             |
| 8.0x8.0x12.0mm<br>1.0"Lead<br>Rectangular Round Head | BL-R513G     | GaP/GaP/ Bright Red     | 700                      | Red Diffused    | 90                       | 50      | 15      | 50        | 2.2                           | 2.6  | 30.0     | 35                          | L-139       |
|                                                      | BL-R453G     | GaAsP/GaP/ Hi-Eff Red   | 635                      |                 | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 100.0    |                             |             |
|                                                      | BL-R613G     | GaAlAs/ SH Red          | 660                      |                 | 20                       | 60      | 30      | 150       | 1.7                           | 2.6  | 150.0    |                             |             |
|                                                      | BL-RX113G    | GaP/GaP/ Hi-Eff Green   | 568                      | Green Diffused  | 30                       | 80      | 30      | 150       | 2.2                           | 2.6  | 180.0    |                             |             |
|                                                      | BL-R213G     | GaP/GaP/ Green          | 568                      |                 | 30                       | 80      | 30      | 150       | 2.2                           | 2.6  | 150.0    |                             |             |
|                                                      | BL-R313G     | GaAsP/GaP/ Yellow       | 585                      | Yellow Diffused | 35                       | 80      | 30      | 150       | 2.1                           | 2.6  | 90.0     |                             |             |
|                                                      | BL-R413G     | GaAsP/GaP/ Orange       | 635                      | Orange Diffused | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 100.0    |                             |             |
| Round ϕ 10.0                                         | BL-B5130A    | GaP/GaP/ Bright Red     | 700                      | Red Diffused    | 90                       | 50      | 15      | 50        | 2.2                           | 2.6  | 20.0     | 50                          | L-140       |
|                                                      | BL-B4530A    | GaAsP/GaP/ Hi-Eff Red   | 635                      |                 | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 100.0    |                             |             |
|                                                      | BL-B6130A    | GaAlAs/ SH Red          | 660                      |                 | 20                       | 60      | 30      | 150       | 1.7                           | 2.6  | 140.0    |                             |             |
|                                                      | BL-BX1130A   | GaP/GaP/ Hi-Eff Green   | 568                      | Green Diffused  | 30                       | 80      | 30      | 150       | 2.2                           | 2.6  | 130.0    |                             |             |
|                                                      | BL-B2130A    | GaP/GaP/ Green          | 568                      |                 | 30                       | 80      | 30      | 150       | 2.2                           | 2.6  | 100.0    |                             |             |
|                                                      | BL-B3130A    | GaAsP/GaP/ Yellow       | 585                      | Yellow Diffused | 35                       | 80      | 30      | 150       | 2.1                           | 2.6  | 90.0     |                             |             |
|                                                      | BL-B4130A    | GaAsP/GaP/ Orange       | 635                      | Orange Diffused | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 100.0    |                             |             |
| Round ϕ 12.0                                         | BL-B513C     | GaP/GaP/ Bright Red     | 700                      | Red Diffused    | 90                       | 50      | 15      | 50        | 2.2                           | 2.6  | 20.0     | 50                          | L-141       |
|                                                      | BL-B453C     | GaAsP/GaP/ Hi-Eff Red   | 635                      |                 | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 60.0     |                             |             |
|                                                      | BL-B613C     | GaAlAs/ SH Red          | 660                      |                 | 20                       | 60      | 30      | 150       | 1.7                           | 2.6  | 100.0    |                             |             |
|                                                      | BL-BX113C    | GaP/GaP/ Hi-Eff Green   | 568                      | Green Diffused  | 20                       | 80      | 30      | 150       | 1.7                           | 2.6  | 120.0    |                             |             |
|                                                      | BL-B213C     | GaP/GaP/ Green          | 568                      |                 | 30                       | 80      | 30      | 150       | 2.2                           | 2.6  | 60.0     |                             |             |
|                                                      | BL-B313C     | GaAsP/GaP/ Yellow       | 585                      | Yellow Diffused | 35                       | 80      | 30      | 150       | 2.1                           | 2.6  | 50.0     |                             |             |
|                                                      | BL-B413C     | GaAsP/GaP/ Orange       | 635                      | Orange Diffused | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 60.0     |                             |             |
| Round ϕ 10.0                                         | BL-B5330M    | GaP/GaP/ Bright Red     | 700                      | Water Clear     | 90                       | 50      | 15      | 50        | 2.2                           | 2.6  | 120.0    | 12                          | L-142       |
|                                                      | BL-B6330M    | GaAlAs/ SH Red          | 660                      |                 | 20                       | 60      | 30      | 150       | 1.7                           | 2.6  | 450.0    |                             |             |
|                                                      | BL-BD330M    | GaAlAs/ DH Red          | 660                      |                 | 20                       | 60      | 30      | 150       | 1.7                           | 2.6  | 600.0    |                             |             |
|                                                      | BL-B2330M    | GaP/GaP/ Green          | 568                      |                 | 30                       | 80      | 30      | 150       | 2.2                           | 2.6  | 350.0    |                             |             |
|                                                      | BL-BX1330M   | GaP/GaP/ Hi-Eff Green   | 568                      |                 | 20                       | 80      | 30      | 150       | 1.7                           | 2.6  | 120.0    |                             |             |
|                                                      | BL-B3330M    | GaAsP/GaP/ Yellow       | 585                      |                 | 35                       | 80      | 30      | 150       | 2.1                           | 2.6  | 250.0    |                             |             |
|                                                      | BL-B4330M    | GaAsP/GaP/ Orange       | 635                      |                 | 45                       | 80      | 30      | 150       | 2.0                           | 2.6  | 300.0    |                             |             |
| Round ϕ 20.0                                         | BL-B6H120U   | GaP/GaP/ Bright Red     | 700                      | Red Diffused    | 90                       | 300     | 15      | 50        | 2.2                           | 2.6  | 50.0     | 180                         | L-143       |
|                                                      | BL-B6E520U   | GaAsP/GaP/ Orange       | 635                      |                 | 45                       | 480     | 30      | 150       | 2.0                           | 2.6  | 180.0    |                             |             |
|                                                      | BL-B6D120U   | GaAlAs/ DH Red          | 660                      |                 | 20                       | 360     | 30      | 150       | 1.7                           | 2.6  | 200.0    |                             |             |
|                                                      | BL-B6G120U   | GaP/GaP/ Green          | 568                      | Green Diffused  | 30                       | 480     | 30      | 150       | 2.2                           | 2.6  | 180.0    |                             |             |
|                                                      | BL-B6X1120U  | GaP/GaP/ Hi-Eff Green   | 568                      |                 | 30                       | 480     | 30      | 150       | 2.2                           | 2.6  | 250.0    |                             |             |
|                                                      | BL-B6Y120U   | GaAsP/GaP/ Yellow       | 585                      | Yellow Diffused | 35                       | 480     | 30      | 150       | 2.1                           | 2.6  | 170.0    |                             |             |
| Round ϕ 20.0                                         | BL-B6H120-1S | GaP/GaP/ Bright Red     | 700                      | Red Diffused    | 90                       | 300     | 15      | 50        | 13.2                          | 15.6 | 50.0     |                             |             |
|                                                      | BL-B6E520-1S | GaAsP/GaP/ Orange       | 635                      |                 | 45                       | 480     | 30      | 150       | 13.2                          | 15.6 | 180.0    |                             |             |
|                                                      | BL-B6D120-2P | GaAlAs/ DH Red          | 660                      |                 | 20                       | 480     | 30      | 150       | 5.1                           | 7.8  | 200.0    |                             |             |
|                                                      | BL-B6G120-2P | GaP/GaP/ Green          | 568                      | Green Diffused  | 30                       | 480     | 30      | 150       | 6.6                           | 7.8  | 180.0    |                             |             |
|                                                      | BL-B6Y120-3P | GaAsP/GaP/ Yellow       | 585                      | Yellow Diffused | 35                       | 480     | 30      | 150       | 4.2                           | 5.2  | 170.0    |                             |             |

Remark : 1.Hi-Eff Red / High-Efficiency Red.

2.Trans / Transparent.

3.2  $\theta$  1/2 The off-axis angle at which the luminous intensity is half the axial luminous intensity.



# Bigger Size LED Lamps BL-B Series

Round Types

|                                                          |                                      |
|----------------------------------------------------------|--------------------------------------|
| <p><b>L-137 BL-Bxx39 Series</b></p>                      | <p><b>L-138 BL-Bxx39B Series</b></p> |
| <p><b>L-139 BL-Rxx3G Series</b></p>                      | <p><b>L-140 BL-Bxx30A Series</b></p> |
| <p><b>L-141 BL-Bxx3C Series</b></p>                      | <p><b>L-142 BL-Bx330M Series</b></p> |
| <p><b>L-143 BL-Bxxx20x &amp; BL-Bxxx20-xx Series</b></p> |                                      |

Notes : 1.All Dimensions are in millimeters (inches).  
2.Tolerance is  $\pm 0.25\text{mm}$  (.010").