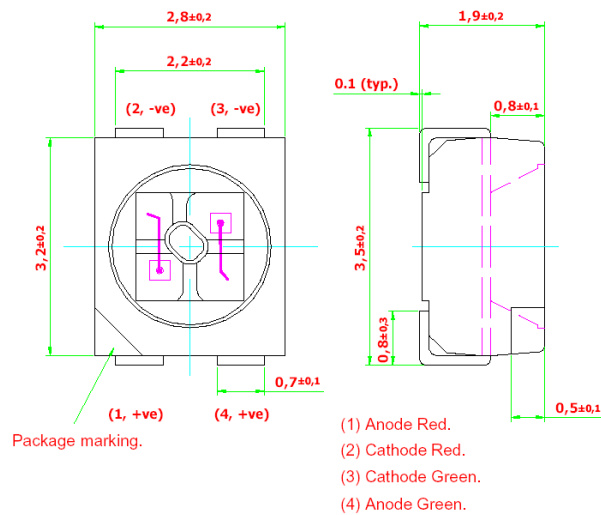




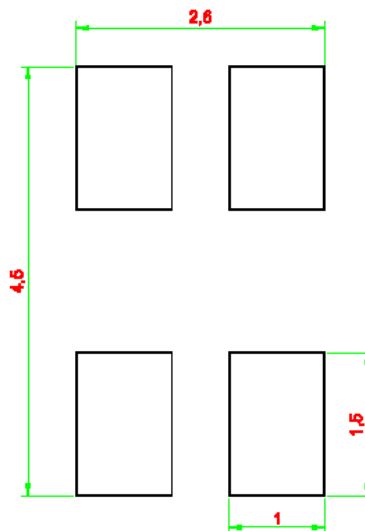
● **Feature:**

1. High brightness bi-color surface mount LED.
2. 120° viewing angle.
3. Small package outline (LxWxH) of 2.8 x 3.2 x 1.9 mm.
4. Qualified according to JEDEC moisture sensitivity Level 2.
5. Compatible to both IR reflow soldering and TTW soldering.

● **Package Dimension:**



**Recommended Solder Pad**





● **Optical Characteristics:**

| Part Number                                                                    | Color<br>$\lambda_{\text{dom}}$ (typical, nm) |                         | Luminous Intensity<br>@ $I_f = 20\text{mA}$ . $I_v$ ( mcd )                                  |                                                                                              |
|--------------------------------------------------------------------------------|-----------------------------------------------|-------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                                                                                | Chip#1                                        | Chip#2                  | Chip#1                                                                                       | Chip#2                                                                                       |
| <b>BL-PMHG-GJS-C10</b><br><br>• BIN L L<br>• BIN L M<br>• BIN M L<br>• BIN M M | AlGaAs<br>Hyper Red<br><br>640                | Gap<br>Green<br><br>570 | <b>11.2 ... 28.5</b><br><br>11.2 ... 18.0<br>11.2 ... 18.0<br>18.0 ... 28.5<br>18.0 ... 28.5 | <b>11.2 ... 28.5</b><br><br>11.2 ... 18.0<br>18.0 ... 28.5<br>11.2 ... 18.0<br>18.0 ... 28.5 |
| <b>BL-PMHG-GJS-C20</b><br><br>• BIN N L<br>• BIN N M<br>• BIN P L<br>• BIN P M | AlGaAs<br>Hyper Red<br><br>640                | Gap<br>Green<br><br>570 | <b>28.5 ... 71.5</b><br><br>28.5 ... 45.0<br>28.5 ... 45.0<br>45.0 ... 71.5<br>45.0 ... 71.5 | <b>11.2 ... 28.5</b><br><br>11.2 ... 18.0<br>18.0 ... 28.5<br>11.2 ... 18.0<br>18.0 ... 28.5 |

NOTE:

1. BL-PMXX comes in a quantity of 2000 units per reel.
2. Luminous intensity is measured with an accuracy of  $\pm 11\%$ .
3. Half group binning for luminous intensity is also available upon request.

● **Electrical Characteristics**

| Color     | $V_f$ at $I_f = 20\text{mA}$ |     | Viewing<br>Angle |
|-----------|------------------------------|-----|------------------|
|           | Typ.                         | Max |                  |
| Hyper Red | 2.2                          | 2.5 | 120              |
| Green     | 1.9                          | 2.5 |                  |

● **Absolute Maximum Ratings:**

| Parameter                                                                | Maximum Value | Unit               |
|--------------------------------------------------------------------------|---------------|--------------------|
| DC forward current.                                                      | 30            | mA                 |
| Peak pulse current.<br>( $t_p \leq 10 \mu\text{s}$ , Duty cycle = 0.005) | 1000          | mA                 |
| Reverse voltage.                                                         | 5             | V                  |
| LED junction temperature.                                                | 125           | $^{\circ}\text{C}$ |
| Operating temperature.                                                   | -55 ... +100  | $^{\circ}\text{C}$ |
| Storage temperature.                                                     | -55 ... +100  | $^{\circ}\text{C}$ |



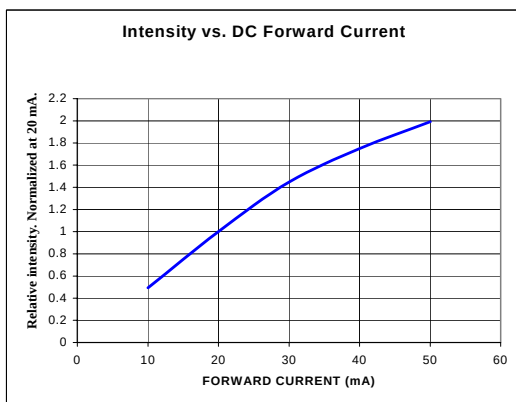
● **Wavelength Grouping:**

| Color     | Group | Wavelength distribution (nm) |
|-----------|-------|------------------------------|
| Green     | Full  | 564.5 – 576.5                |
|           | W     | 564.5 – 567.5                |
|           | X     | 567.5 – 570.5                |
|           | Y     | 570.5 – 573.5                |
|           | Z     | 573.5 – 576.5                |
| Hyper Red | Full  | 640 – 650                    |

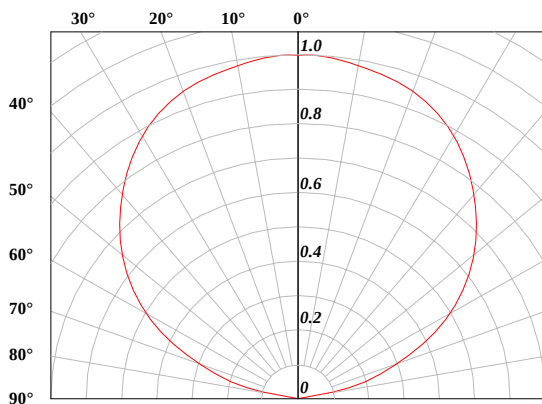
Wavelength is measured with an accuracy of  $\pm 1$  nm.

● **Typical electro-optical characteristics curves:**

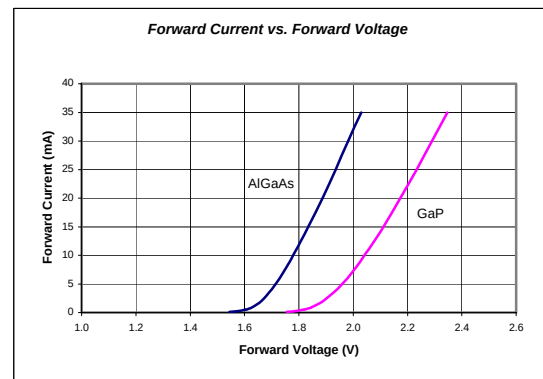
*Fig. 1 Relative luminous intensity vs. forward current.*



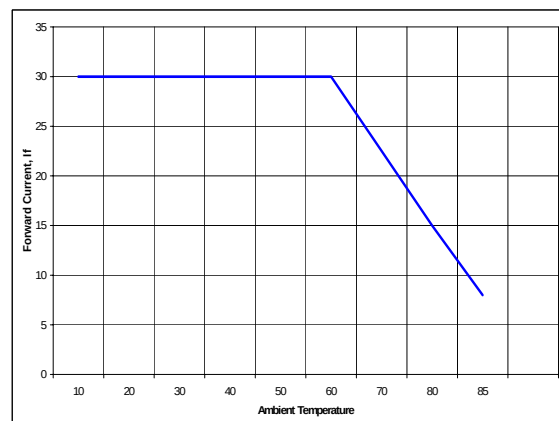
*Fig. 3 Radiation pattern.*



*Fig. 2 Forward current vs. forward voltage.*



*Fig. 4 Maximum forward current vs. temperature.*

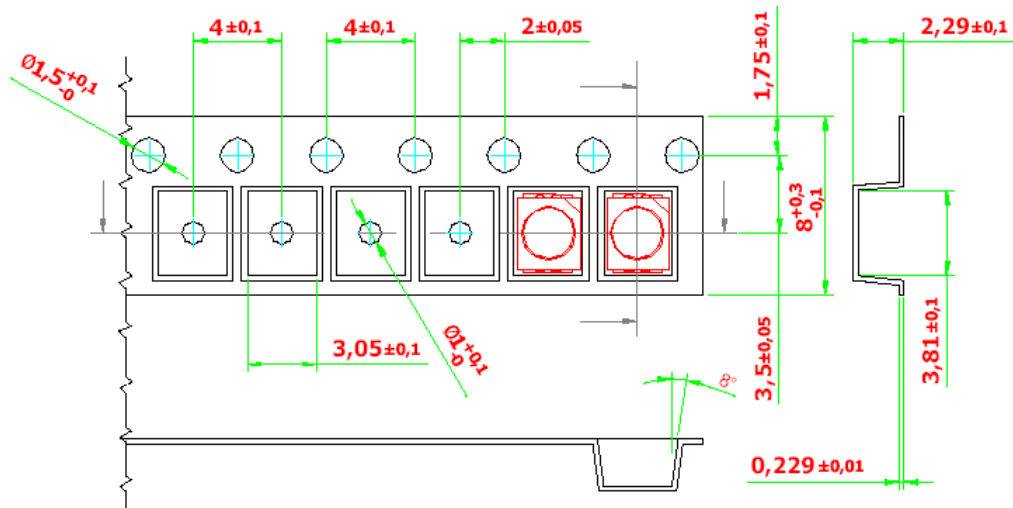




● **Taping And Orientation.**

Reels come in quantity of 2000 units.

Reel diameters 180 mm.



200 mm min. for Ø180 reel.

480 mm min. for Ø180 reel.

200 mm min. for Ø330 reel.

960 mm min. for Ø330 reel.

