

## Cylindrical LED Type, Bi-color LED lamp

BL-L1F7

### Features:

- 10mm Cylindrical LED lamp, FLAT TOP, BI-COLOR LED Lamps, with 2 leads
- Ultra brightness.
- Choice of various viewing angles.
- Diffused, Transparent and Water clear lens are available.
- IC compatible /Low current capability.
- RoHs Compliance



### ■ Electrical-optical characteristics: (Ta=25°C) (Test Condition: IF=20mA)

| Part Number  | Chip          |           |                        | Lens Type   | Forward Voltage(VF)<br>Unit:V |      | Luminous Intensity (Iv)<br>Unit:mcd |     | Viewing Angle<br>2θ1/2(deg) |
|--------------|---------------|-----------|------------------------|-------------|-------------------------------|------|-------------------------------------|-----|-----------------------------|
|              | Emitted Color | Material  | λ <sub>P</sub><br>(nm) |             |                               |      |                                     |     |                             |
|              |               |           |                        |             | Typ                           | Max  | Min.                                | Typ |                             |
| BL-L1F7EGW   | Red           | GaAsP/GaP | 635                    | Water Diff. | 2.10                          | 2.50 | 8                                   | 20  | 110                         |
|              | Green         | GaP/GaP   | 570                    |             | 2.20                          | 2.50 | 5                                   | 15  |                             |
| BL-L1F7YGW   | Yellow        | GaAsP/GaP | 585                    |             | 2.10                          | 2.50 | 5                                   | 15  |                             |
|              | Green         | GaP/GaP   | 570                    |             | 2.20                          | 2.50 | 5                                   | 15  |                             |
| BL-L1F7UEUGW | Ultra Yellow  | AlGaInP   | 630                    |             | 2.10                          | 2.50 | 100                                 | 190 |                             |
|              | Ultra Green   | AlGaInP   | 574                    |             | 2.20                          | 2.50 | 80                                  | 130 |                             |

### ■ Absolute maximum ratings (Ta=25°C)

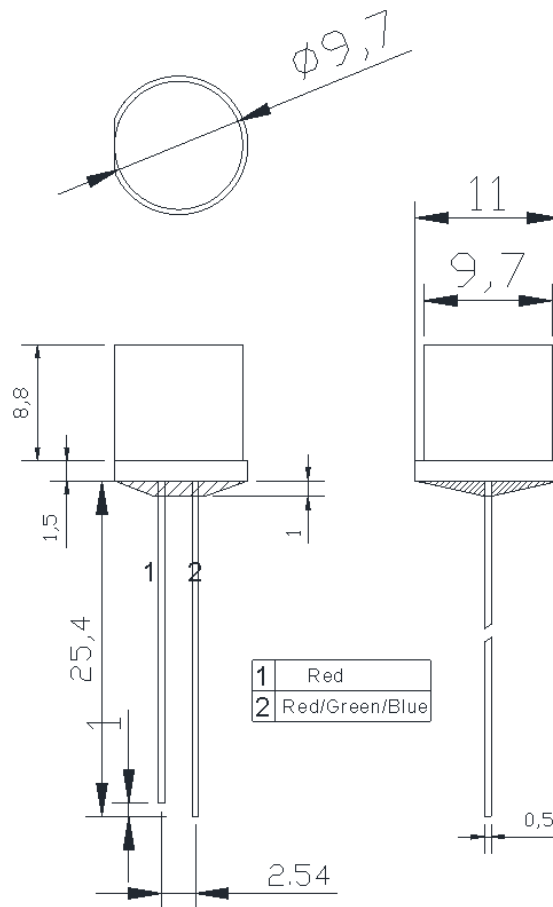
| Parameter                                          | E                                                                     | UE  | Y   | G   | UG  | Unit |
|----------------------------------------------------|-----------------------------------------------------------------------|-----|-----|-----|-----|------|
| Forward Current $I_F$                              | 25                                                                    | 30  | 25  | 30  | 30  | mA   |
| Power Dissipation $P_d$                            | 60                                                                    | 65  | 60  | 65  | 75  | mW   |
| Reverse Voltage $V_R$                              | 5                                                                     | 5   | 5   | 5   | 5   | V    |
| Peak Forward Current $I_{PF}$<br>(Duty 1/10 @1KHZ) | 150                                                                   | 150 | 150 | 150 | 150 | mA   |
| Operation Temperature $T_{OPR}$                    | -40 to +80                                                            |     |     |     |     | °C   |
| Storage Temperature $T_{STG}$                      | -40 to +85                                                            |     |     |     |     | °C   |
| Lead Soldering Temperature<br>$T_{SOL}$            | Max.260±5°C for 3 sec Max.<br>(1.6mm from the base of the epoxy bulb) |     |     |     |     | °C   |

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### ■ Package configuration & Internal circuit diagram

## BL-L1F7 Series



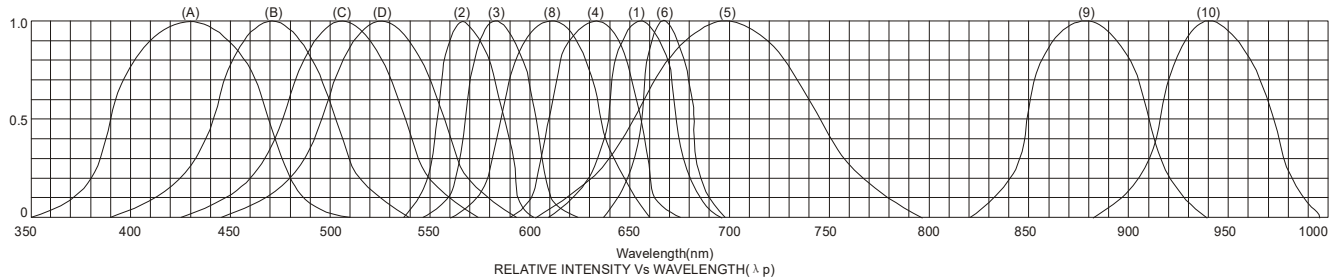
#### Notes:

1. All dimensions are in millimeters (inches)
2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
3. Specifications are subject to change without notice.

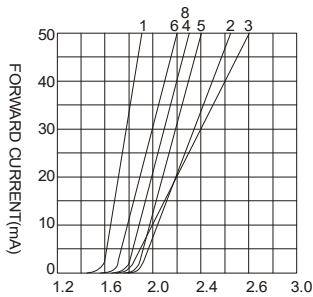
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**BL-L1F7**

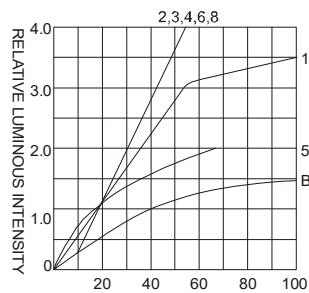
### ■ Typical electrical-optical characteristics curves:



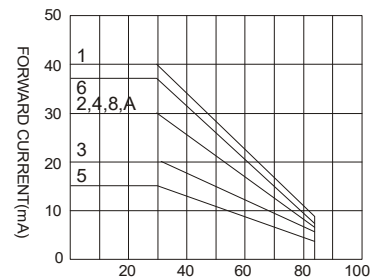
- |                                           |                                      |
|-------------------------------------------|--------------------------------------|
| (1) - GaAsP/GaAs 655nm/Red                | (9) - GaAlAs 880nm                   |
| (2) - GaP 570nm/Yellow Green              | (10) - GaAs/GaAs & GaAlAs/GaAs 940nm |
| (3) - GaAsP/GaP 585nm/Yellow              | (A) - GaN/SiC 430nm/Blue             |
| (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red | (B) - InGaN/SiC 470nm/Blue           |
| (5) - GaP 700nm/Bright Red                | (C) - InGaN/SiC 505nm/Ultra Green    |
| (6) - GaAlAs/GaAs 660nm/Super Red         | (D) - InGaAl/SiC 525nm/Ultra Green   |
| (8) - GaAsP/GaP 610nm/Super Red           |                                      |



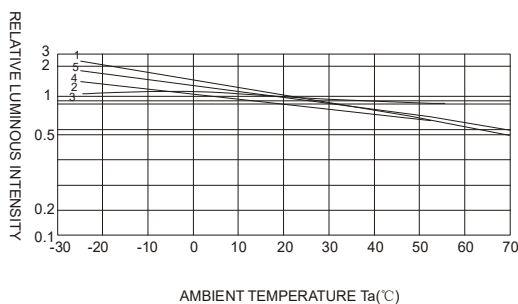
FORWARD VOLTAGE (Vf)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



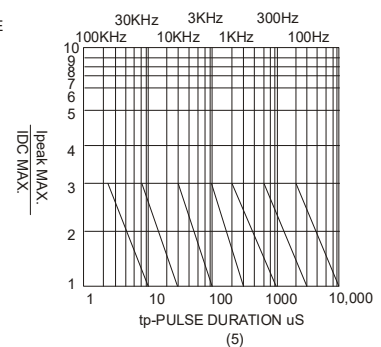
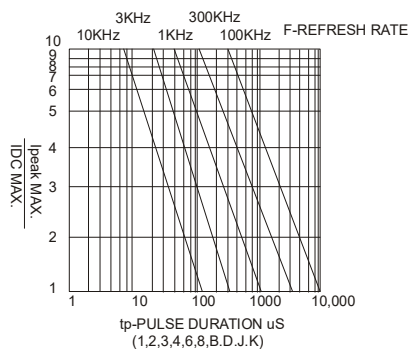
FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



AMBIENT TEMPERATURE Ta(°C)  
FORWARD CURRENT VS. AMBIENT  
TEMPERATURE



AMBIENT TEMPERATURE Ta(°C)



NOTE:25°C free air temperature unless otherwise specified

**Cylindrical LED Type, Bi-color LED lamp**

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■ **Packing and weighting**

