

# Circuit Board Indicator, 1.8mm LED CBI

BL-LA1D2-T0607

## ■ FEATURES

- 1.8mm LED CBI, single level, top view
- Compact 1.8mm CBI package ideal for tight board spacing
- Pre-formed leads for consistent PCB alignment
- Black housing provides high contrast for clear status indication
- Long-life LED chip with stable luminous performance
- UL 94V-0 rated PA66 housing
- Halogen-free and fully RoHS compliant.



## ■ APPLICATIONS

- Miniature status indicators
- Space-constrained control panels and instruments
- Compact switch and keypad backlighting
- Portable device indicators
- Small signage or low-power display modules

## ■ ATTENTION

This device is sensitive to electrostatic discharge.

Use appropriate ESD handling procedures during assembly.

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

| Part Number     | Assembly<br>LED |   | Chip             |           |            | Lens<br>Type | Forward<br>Voltage(VF)<br>Unit:V |     | Luminous<br>Intensity<br>(Iv)<br>Unit:mcd |      | Viewing<br>Angle<br>2θ1/2<br>(deg) |
|-----------------|-----------------|---|------------------|-----------|------------|--------------|----------------------------------|-----|-------------------------------------------|------|------------------------------------|
|                 |                 |   | Emitted<br>Color | Material  | λP<br>(nm) |              | Typ                              | Max | Min.                                      | Typ. |                                    |
| BL-LA1D2-T0607B | LED1            | B | Blue             | InGaN     | 465        | C. D.        | 3.1                              | 4.2 | 300                                       | 700  | 60                                 |
| BL-LA1D2-T0607E | LED1            | E | amber            | AlGaAs    | 610        | C. D.        | 1.85                             | 2.2 | 30                                        | 110  | 60                                 |
| BL-LA1D2-T0607G | LED1            | G | Green            | GaP/GaP   | 570        | C. D.        | 2.2                              | 2.5 | 1.5                                       | 20   | 60                                 |
| BL-LA1D2-T0607R | LED1            | R | Red              | GaAsP/GaP | 635        | C. D.        | 2.1                              | 2.5 | 10                                        | 70   | 60                                 |
| BL-LA1D2-T0607W | LED1            | W | White            | InGaN     | -          | C. D.        | 3.1                              | 4.2 | 300                                       | 700  | 60                                 |
| BL-LA1D2-T0607Y | LED1            | Y | Yellow           | GaAsP/GaP | 585        | C. D.        | 2.1                              | 2.5 | 1.5                                       | 20   | 60                                 |

## Circuit Board Indicator, 1.8mm LED CBI

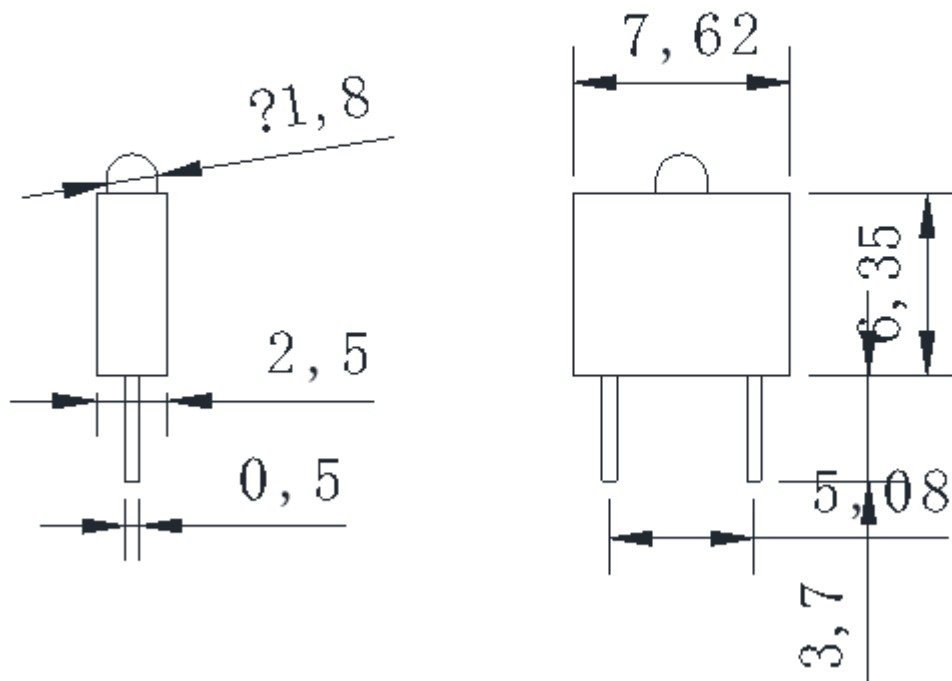
BL-LA1D2-T0607

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

| Parameter                                          | R                                                                     | E   | Y   | G   | B   | W   | Unit |
|----------------------------------------------------|-----------------------------------------------------------------------|-----|-----|-----|-----|-----|------|
| Forward Current $I_F$                              | 25                                                                    | 25  | 25  | 30  | 30  | 30  | mA   |
| Power Dissipation $P_d$                            | 60                                                                    | 60  | 60  | 65  | 120 | 120 | mW   |
| Reverse Voltage $V_R$                              | 5                                                                     | 5   | 5   | 5   | 5   | 5   | V    |
| Peak Forward Current $I_{PF}$<br>(Duty 1/10 @1KHZ) | 150                                                                   | 150 | 150 | 150 | 100 | 100 | mA   |
| Operation Temperature<br>$T_{OPR}$                 | -40 to +80                                                            |     |     |     |     |     | °C   |
| Storage Temperature $T_{STG}$                      | -40 to +85                                                            |     |     |     |     |     | °C   |
| Lead Soldering<br>Temperature<br>$T_{SOL}$         | Max.260±5°C for 3 sec Max.<br>(1.6mm from the base of the epoxy bulb) |     |     |     |     |     | °C   |

### ■ Package configuration & Internal circuit diagram

# BL-LA1D2-T0607 Series



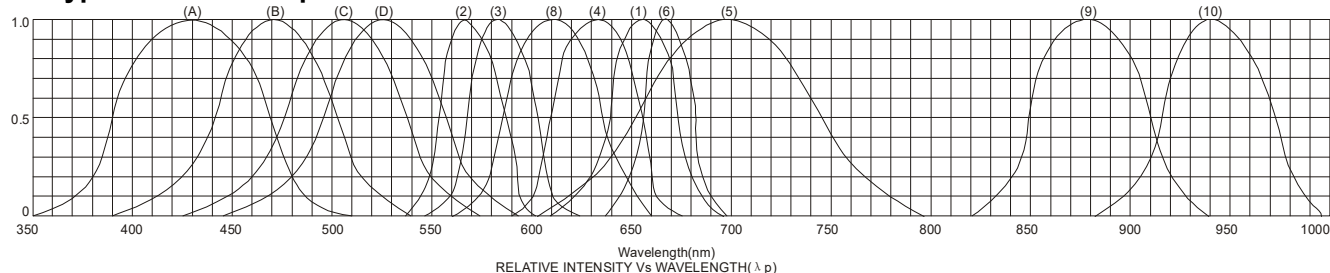
#### Notes:

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.

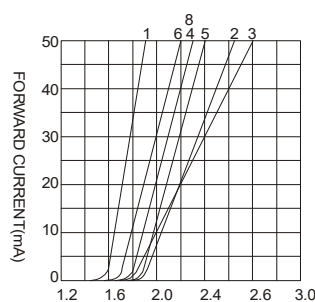
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**BL-LA1D2-T0607**

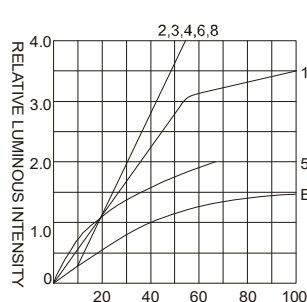
## Typical electrical-optical characteristics curves:



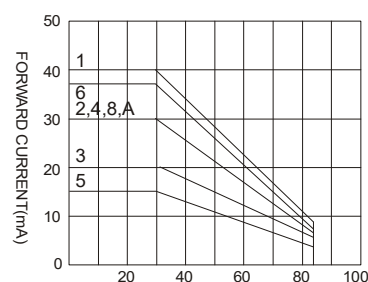
- |                                           |                                      |
|-------------------------------------------|--------------------------------------|
| (1) - GaAsP/GaAs 655nm/Red                | (9) - GaAlAs 880nm                   |
| (2) - GaP 570nm/Yellow Green              | (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           |                                      |



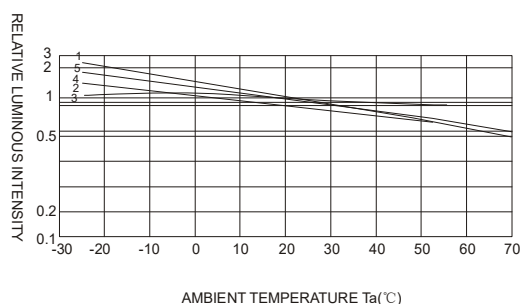
FORWARD VOLTAGE (Vf)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



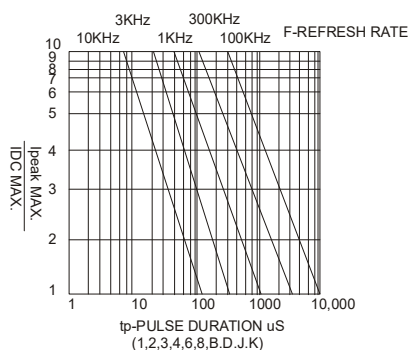
FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



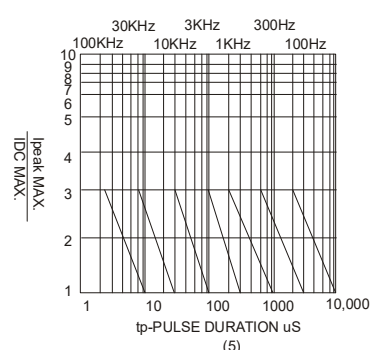
AMBIENT TEMPERATURE Ta(°C)  
FORWARD CURRENT VS. AMBIENT  
TEMPERATURE



AMBIENT TEMPERATURE Ta(°C)



tp-PULSE DURATION μs  
(1,2,3,4,6,8,B,D,J,K)



(5)

NOTE: 25°C free air temperature unless otherwise specified

**Circuit Board Indicator, 1.8mm LED CBI**

**BL-LA1D2-T0607**

■ **Packing and weighting**

