

## L760/850-38

### Bi-Color LED for Medical Analysis

Bi-color LED of L760/850-38 consists of DDH structure AlGaAs LEDs mounted on a lead frame with a clear epoxy lens.

On forward bias it emits a band of visible light which peaks 760nm and 850nm at anode common.

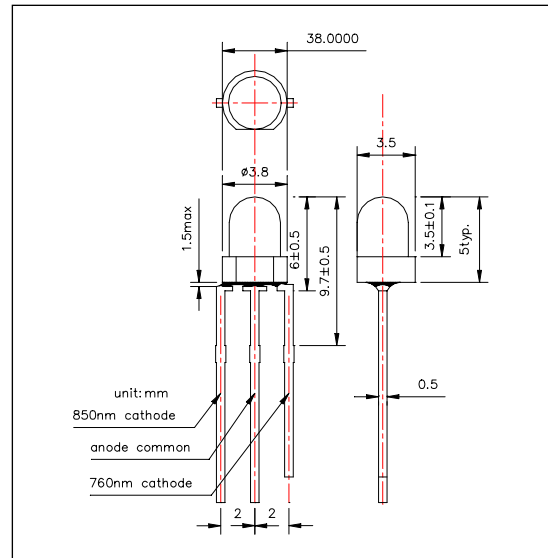
**<Features>**

- High Reliability
- High Power
- Anode Common

**<Specifications>**

1. Product Name: Bi-color LED
2. Type Number: L760/850-38
3. Chip:
  - Chip material: AlGaAs(DDH structure)
  - Peak Wavelength: 760nm and 850nm typ.
4. Package
  - Type:  $\Phi$ 3mm clear molding
  - Resin Material: Epoxy Resin
  - Lead Frame: Soldered(Lead Free)

Outer Dimension (Unit:mm)



| Absolute Maximum Ratings |        |                     |       |      |                     |
|--------------------------|--------|---------------------|-------|------|---------------------|
| Item                     | Symbol | Maximum Rated Value |       | Unit | Ambient Temperature |
|                          |        | 760nm               | 850nm |      |                     |
| Power Dissipation        | PD     | 150                 | 150   | mW   | Ta=25°C             |
| Forward Current          | IF     | 75                  |       | mA   | Ta=25°C             |
| Reverse Voltage          | IR     | 10                  |       | V    | Ta=25°C             |
| Operating Temperature    | TOPR   | -30 ~ +85           |       | °C   |                     |
| Storage Temperature      | TSTG   | -30 ~ +100          |       | °C   |                     |
| Soldering Temperature    | TSOL   | 260                 |       | °C   |                     |

Soldering condition: Soldering condition must be completed within 3 seconds at 260°C

| Electro-Optical Characteristics [Ta=25°C] |                 |           |         |      |         |      |         |      |       |
|---|-----------------|-----------|---------|------|---------|------|---------|------|-------|
| Item                                      | Symbol          | Condition | Minimum |      | Typical |      | Maximum |      | Unit  |
|   |                 |           | 760     | 850  | 760     | 850  | 760     | 850  |       |
| Forward Voltage                           | VF              | IF=50mA   |         |      | 1.85    | 1.55 | 2.00    | 1.70 | V     |
| Reverse Current                           | IR              | VR=5V     |         |      |         |      | 10      |      | uA    |
| Total Radiated Power                      | PO              | IF=50mA   | 10.0    | 15.0 | 16.0    | 18.0 |         |      | mW    |
| Radiant Intensity                         | Ie              | IF=50mA   | 10.0    | 15.0 | 18.0    | 20.0 |         |      | mW/sr |
| Peak Wavelength                           | $\lambda$ P     | IF=50mA   | 740     | 830  | 760     | 850  | 780     | 870  | nm    |
| Half Width                                | $\Delta\lambda$ | IF=50mA   |         |      | 30      | 35   |         |      | nm    |
| Viewing Half Angle                        | $\theta$ 1/2    | IF=50mA   |         |      | ±40     |      |         |      | Deg.  |

Total Radiated Power is measured by Photodyne #500.  
 Radiant Intensity is measured by Tektronix J-6512

