

## DATA SHEET

● DEVICE NUMBER : BL-B3141-AT

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|---------------|-----|-----|-----|--|--|--|--|--|--|--|-------------------|
| 2010.6.8      | 1.0 | 1.0 | 1.0 |  |  |  |  |  |  |  | Original Released |
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| APPROVED | DRAWER |
|----------|--------|
| 馬駿       | 糜萍     |

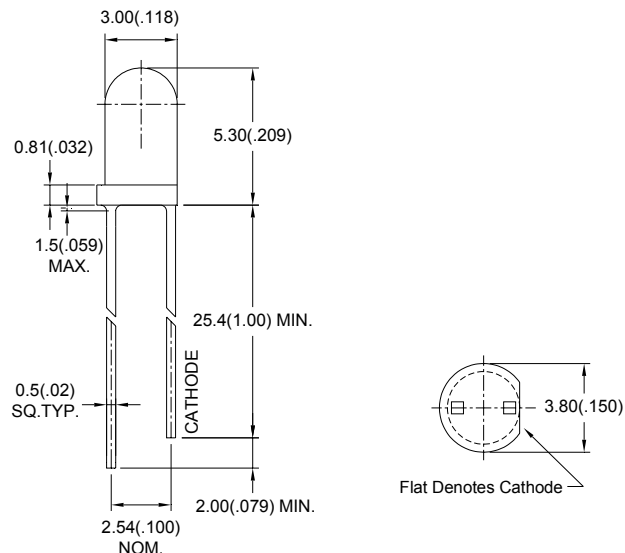
## ● Features:

1. Chip material: GaAsP/GaP
2. Emitted color : Yellow
3. Lens Appearance : Yellow Diffused
4. Low power consumption.
5. High efficiency.
6. Versatile mounting on P.C. Board or panel.
7. Low current requirement.
8. 3mm diameter package
9. This product don't contained restriction substance, compliance RoHS standard.

## ● Applications:

1. TV set
2. Monitor
3. Telephone
4. Computer
5. Circuit board

## ● Package dimensions:



### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  ( $0.01''$ ) unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

## ● Absolute Maximum Ratings( $T_a=25^\circ\text{C}$ )

| Parameter                          | Symbol    | Rating                                     | Unit |
|------------------------------------|-----------|--------------------------------------------|------|
| Power Dissipation                  | $P_d$     | 80                                         | mW   |
| Forward Current                    | $I_F$     | 30                                         | mA   |
| Peak Forward Current <sup>*1</sup> | $I_{FP}$  | 150                                        | mA   |
| Reverse Voltage                    | $V_R$     | 5                                          | V    |
| Operating Temperature              | $T_{opr}$ | $-40^\circ\text{C} \sim 85^\circ\text{C}$  |      |
| Storage Temperature                | $T_{stg}$ | $-40^\circ\text{C} \sim 100^\circ\text{C}$ |      |
| Soldering Temperature              | $T_{sol}$ | 260°C max (for 5 seconds)                  |      |
| Hand Soldering Temperature         | $T_{sol}$ | 350°C max(for 3 seconds )                  |      |

<sup>\*1</sup>Condition for  $I_{FP}$  is pulse of 1/10 duty and 0.1msec width.

## Electrical and optical characteristics(Ta=25°C)

| Parameter                | Symbol         | Condition            | Min. | Typ. | Max. | Unit |
|--------------------------|----------------|----------------------|------|------|------|------|
| Forward Voltage          | V <sub>F</sub> | I <sub>F</sub> =20mA | -    | 2.1  | 2.6  | V    |
| Luminous Intensity       | I <sub>v</sub> | I <sub>F</sub> =20mA | -    | 30   | -    | mcd  |
| Reverse Current          | I <sub>R</sub> | V <sub>R</sub> =5V   | -    | -    | 100  | μA   |
| Peak Wave Length         | λ <sub>p</sub> | I <sub>F</sub> =20mA | -    | 590  | -    | nm   |
| Dominant Wave Length     | λ <sub>d</sub> | I <sub>F</sub> =20mA | 580  | -    | 594  | nm   |
| Spectral Line Half-width | Δλ             | I <sub>F</sub> =20mA | -    | 35   | -    | nm   |
| Viewing Angle            | 2θ1/2          | I <sub>F</sub> =20mA | -    | 35   | -    | deg  |

## Typical Electro-Optical Characteristics Curves

Fig.1 Relative intensity vs. Wavelength

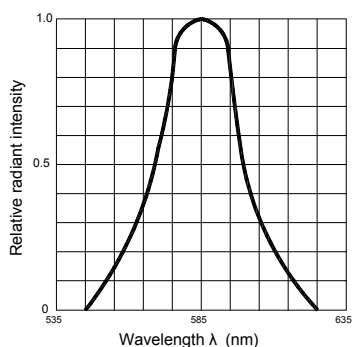


Fig.2 Forward current derating curve vs. Ambient temperature

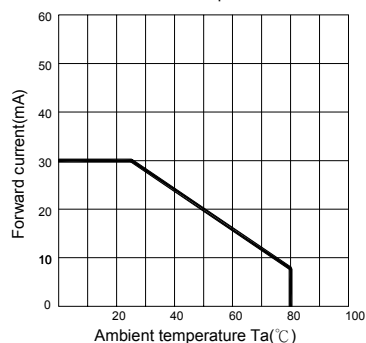


Fig.3 Forward current vs. Forward voltage

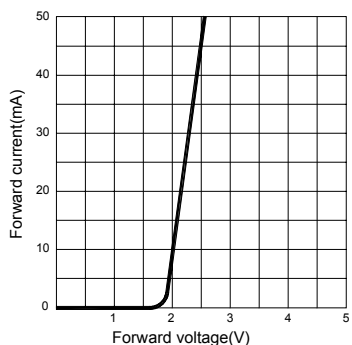


Fig.4 Relative luminous intensity vs. Ambient temperature

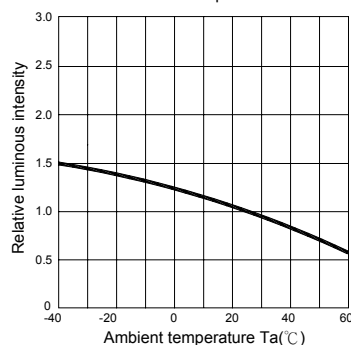


Fig.5 Relative luminous intensity vs. Forward current

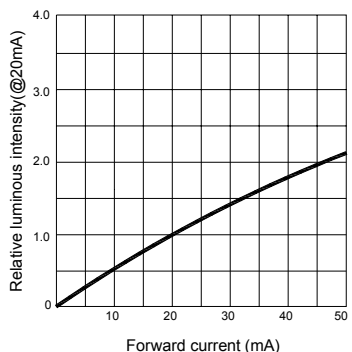
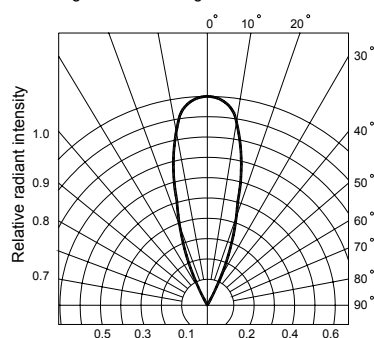


Fig.6 Radiation diagram



## ● Bin Limits

### 1. Intensity Bin Limits (At $I_F = 20\text{mA}$ )

| Bin Code | Min. (mcd) | Max. (mcd) |
|----------|------------|------------|
| K        | 12.3       | 18.5       |
| L        | 18.5       | 28         |
| M        | 28         | 42         |
| N        | 42         | 63         |
| P        | 63         | 94         |

## ● Bin : x



NOTES: 1. Tolerance of measurement of luminous intensity.

:  $\pm 15\%$

## ● DIP soldering (Wave Soldering)

Preheating :  $120^\circ\text{C}$ , within 120~180 sec.

Operation heating :  $255^\circ\text{C} \pm 5^\circ\text{C}$  within 5 sec.  $260^\circ\text{C}$  (Max)

Gradual Cooling (Avoid quenching).

