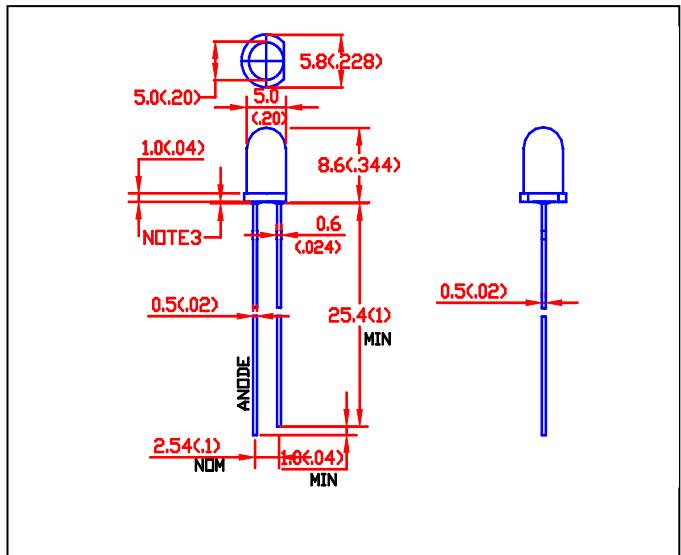


## Characters

- § High intensity.
- § Viewing angle 15°.
- § Reliable and Rugged
- § Standard 5mm diameter package.

| ITEM        | MATERIALS             |
|-------------|-----------------------|
| Resin(Mold) | Epoxy                 |
| Lens Color  | Water Transparent     |
| Lead Frame  | Ag Plating Iron Alloy |
| Dice        | InGaN                 |

## Outline Dimensions



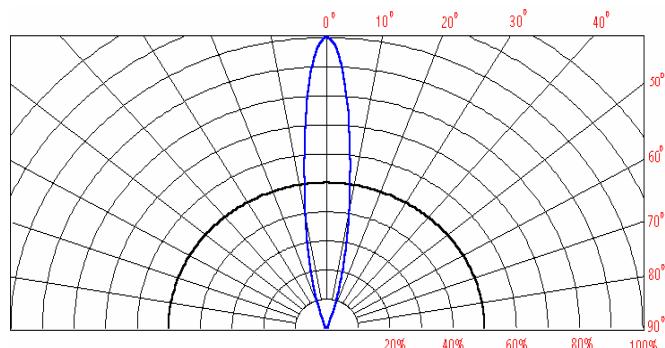
## Absolute Maximum Ratings ( Ta=25°C )

| Item                   | Symbol | Value      |  | Unit |
|------------------------|--------|------------|--|------|
|                        |        | Green      |  |      |
| Power Dissipation      | PD     | 120        |  | mW   |
| DC Forward Current     | IF     | 20         |  | mA   |
| Pulsed Forward Current | IFP    | 100 *      |  | mA   |
| Reverse Voltage        | VR     | 5 ^        |  | V    |
| Operating Temperature  | Topr   | -25 ~ +80  |  | °C   |
| Storage Temperature    | Tstg   | -40 ~ +100 |  | °C   |
| Soldering Temperature△ | Tsol   | 260        |  | °C   |

\* Duty 1/10 Pulse Width 0.1ms      This Rating is Zener Diode

△ At the position of 4mm from the bottom of the package within 5 seconds.

## Directive Characteristics ( Ta=25°C )



## Electrical-Optical Characteristics ( Ta=25°C )

## Relative Luminous Intensity

| Part No.        | Luminous Intensity ( mcd ) ☆ |      |           | Forward Voltage ( V ) |      |           | Forward Voltage( V ) |           | Reverse Current( μA ) |          | Wavelength Characteristics ( nm ) |          |          |           |
|-----------------|------------------------------|------|-----------|-----------------------|------|-----------|----------------------|-----------|-----------------------|----------|-----------------------------------|----------|----------|-----------|
|                 | Typ.                         | Min. | IF ( mA ) | Typ.                  | Max. | IF ( mA ) | Min.                 | IF ( μA ) | Max.                  | VR ( V ) | λ D Typ.                          | λ D Max. | Δ λ Typ. | IF ( mA ) |
| BL503G6CA-3C/01 | 12000                        | 9200 | 20        | 3.2                   | 4.0  | 20        | 2.0                  | 100       | 50                    | 5        | 518                               | 523♦     | 25       | 20        |

☆ Axial Direction (luminous Intensity )

♦ Products are sorted by wavelength, which cannot be specified by customer..

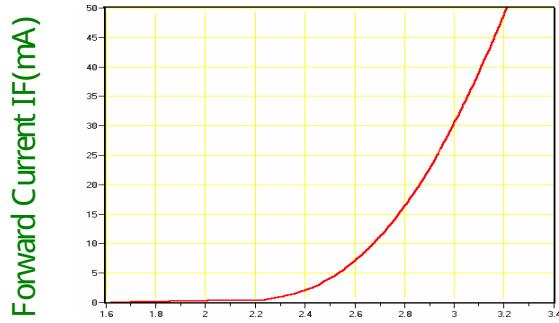
## Notes:

- § All dimensions are in millimeters ( inches ).
- § Tolerance is ±0.25 (.010) mm unless otherwise noted.
- § Protruded resin under flange is 1.0 mm (.04) max.
- § Lead spacing is measured where the leads emerge from the package.
- § Caution in ESD: Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, Equipment and machinery must be properly grounded.

## Typical Characteristics

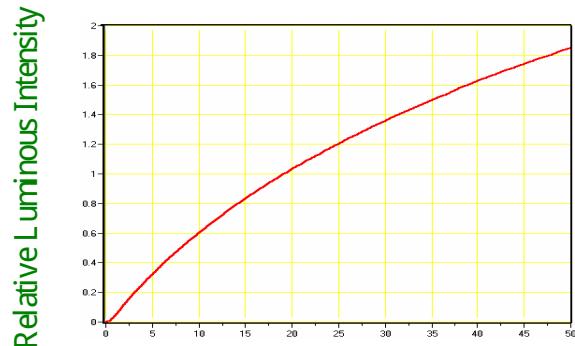
The data typical , and the value is not guaranteed.

IF-VF(T<sub>a</sub>=25°C)



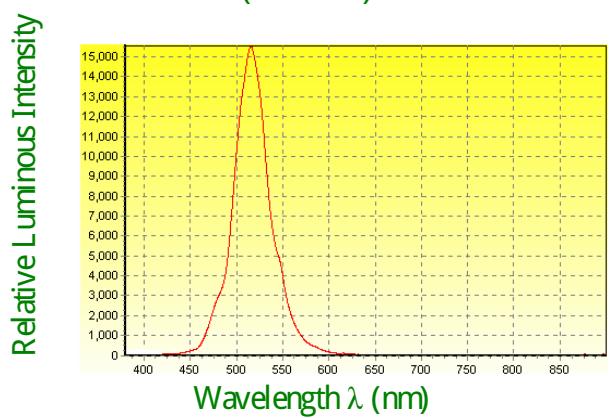
Forward Voltage VF(V)

Relative Luminous Intensity-IF  
(T<sub>a</sub>=25°C)

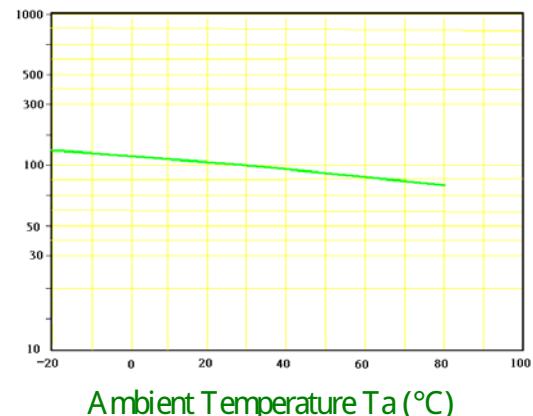


Forward Current IF(mA)

Wavelength Characteristics  
(T<sub>a</sub>=25°C)

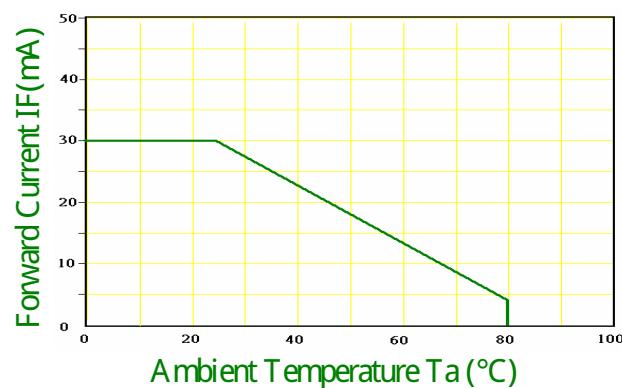


Relative Luminous Intensity-Ta

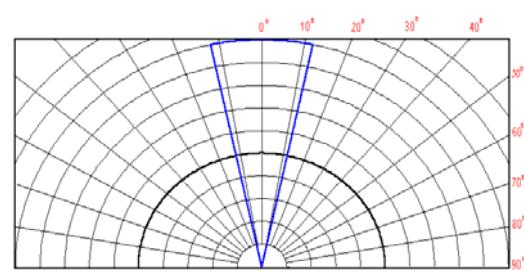


Ambient Temperature T\_a (°C)

IF-Ta



θ – λ(T<sub>a</sub>=25°C)



Wavelength λ (nm)

## **Reliability Test Items And Conditions.**

| <b>NO</b> | <b>Item</b>                        | <b>Test Conditions</b>                   | <b>Test Hours/Cycle</b> | <b>Sample Size</b> | <b>Ac/Re</b> |
|-----------|------------------------------------|--|-------------------------|--------------------|--------------|
| 1         | Solder Heat                        | TEMP:260°C±5°C                           | 5SEC                    | 76PCS              | 0/1          |
| 2         | Temperature Cycle                  | H:+85°C 30MIN<br>↓ 5MIN<br>L:-55°C 30MIN | 50CYCLES                | 76PCS              | 0/1          |
| 3         | Thermal Shock                      | H:+100°C 5MIN<br>↓ 10SEC<br>L:-10°C 5MIN | 50CYCLES                | 76PCS              | 0/1          |
| 4         | High Temperature Storage           | TEMP:100°C                               | 1000HRS                 | 76PCS              | 0/1          |
| 5         | Low Temperature Storage            | TEMP:-55°C                               | 1000HRS                 | 76PCS              | 0/1          |
| 6         | DC Operating Life                  | TEMP:25°C<br>IF=20mA                     | 1000HRS                 | 76PCS              | 0/1          |
| 7         | High Temperature/<br>High Humidity | 85°C/85%RH                               | 1000HRS                 | 76PCS              | 0/1          |