

## LC503TBL1-15G-A

### Features

5mm Package  
 High Luminous Intensity  
 High Optical Power  
 All Plastic Mold Type  
 Water Clear Lens  
 LEAD FREE

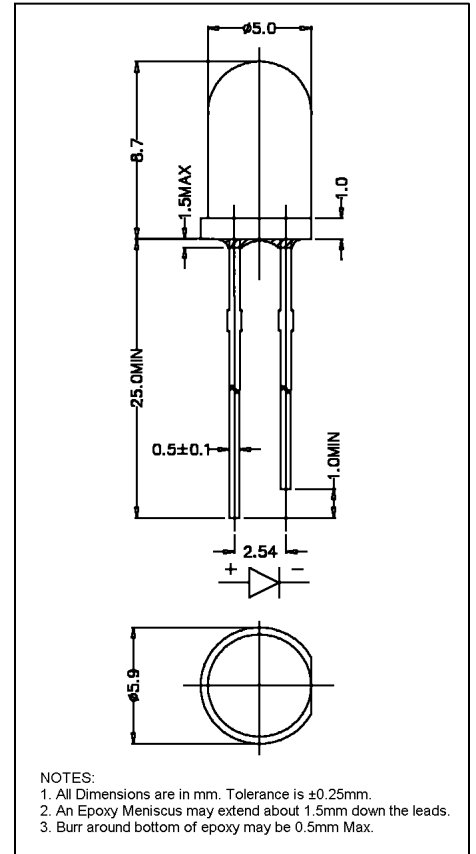
### Applications

Decorative Lighting  
 General Purpose Lighting  
 Indoor Message Centers  
 Instrumentation  
 Medical Equipment



## ATTENTION

OBSERVE PRECAUTIONS  
 ELECTROSTATIC  
 SENSITIVE DEVICES



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

| Characteristic        | Symbol    | Max.           | Unit             |
|-----------------------|-----------|----------------|------------------|
| Forward Current       | $I_F$     | 25             | mA               |
| Reverse Voltage       | $V_R$     | 5              | V                |
| Power Dissipation     | $P_D$     | 100.00         | mW               |
| Operating Temperature | $T_{opr}$ | -40 ~ +95      | $^\circ\text{C}$ |
| Storage Temperature   | $T_{stg}$ | -40 ~ +100     | $^\circ\text{C}$ |
| Soldering Temperature | $T_{sol}$ | 260            | $^\circ\text{C}$ |
| Soldering Time        | -         | for 3 sec. max | -                |

### Opto-Electrical Characteristics ( $T_a=25^\circ\text{C}$ )

| Characteristic           | Symbol          | Test Condition    | Min     | Typ        | Max  | Unit          |
|--------------------------|-----------------|-------------------|---------|------------|------|---------------|
| Forward Voltage          | $V_F$           | $I_F=20\text{mA}$ | -       | 3.40       | 4.00 | V             |
| Reverse Current          | $I_R$           | $V_R=5\text{V}$   | -       | -          | 100  | $\mu\text{A}$ |
| Luminous Intensity       | $I_v$           | $I_F=20\text{mA}$ | 3000.00 | 7000.00    | -    | mcd           |
| Viewing Angle            | $2\theta^{1/2}$ | -                 | -       | $15^\circ$ | -    | deg.          |
| Peak Wavelength          | $\lambda_p$     | $I_F=20\text{mA}$ | -       | 465        | -    | nm            |
| Dominant Wavelength      | $\lambda_d$     | $I_F=20\text{mA}$ | -       | 470        | -    | nm            |
| Spectral Line Half Width | $\Delta\lambda$ | $I_F=20\text{mA}$ | -       | 26         | -    | nm            |

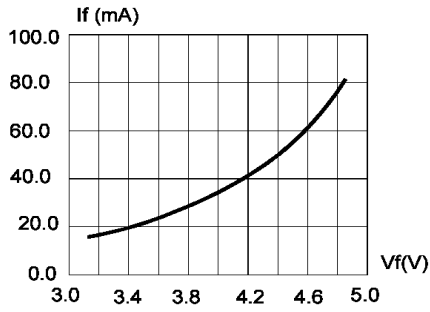


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

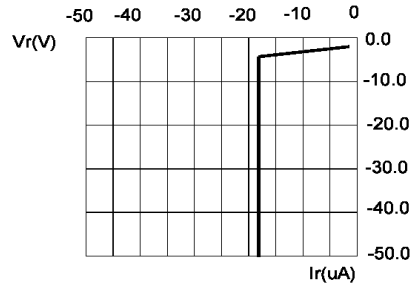


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

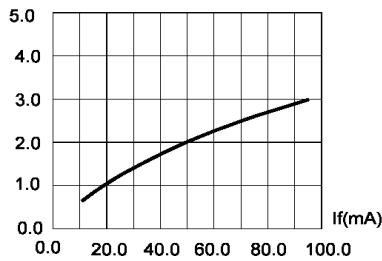


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

Half Power  $\Delta$  WL=28nm  
Domi WL= 470nm

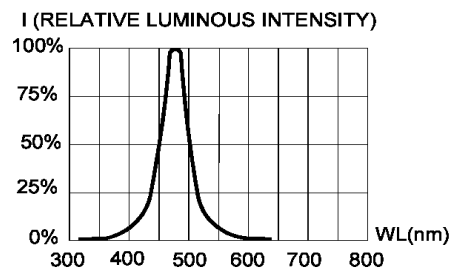


FIG.4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.

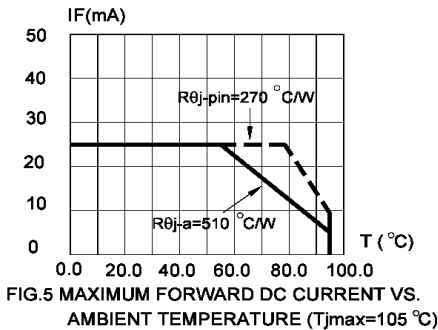


FIG.5 MAXIMUM FORWARD DC CURRENT VS. AMBIENT TEMPERATURE (Tjmax=105 °C)

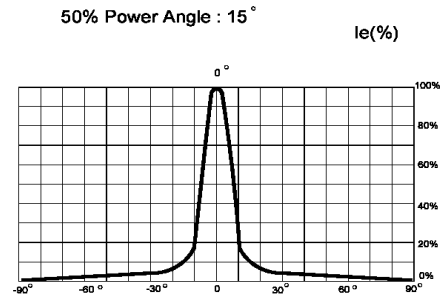


FIG.6 FAR FIELD PATTERN

1. Cathode PAD Area (0.18 X 0.18inch<sup>2</sup>)
2. Height above nominal seating plane in inches(0.3inch)