

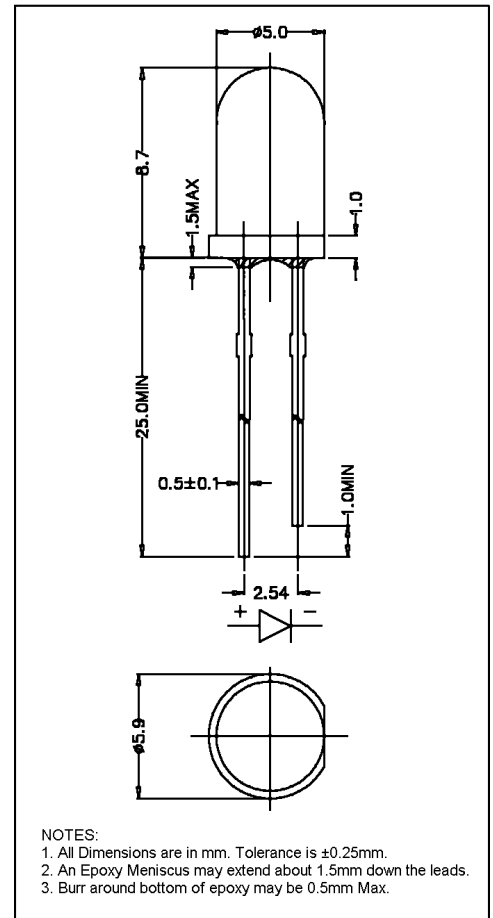
### LC503MUV1-30Q-A

#### Features

5mm Package  
High Radiant Power  
All Plastic Mold Type  
Water Clear Lens  
LEAD FREE

#### Maximum Ratings (Ta=25°C)

| Characteristic         | Symbol           | Max.      | Test Condition         | Unit |
|------------------------|------------------|-----------|------------------------|------|
| Forward Current        | I <sub>F</sub>   | 20        | —                      | mA   |
| Pulsed Forward Current | I <sub>FP</sub>  | 100.00    | PW=0.1mS,<br>Duty=0.1% | mA   |
| Reverse Voltage        | V <sub>R</sub>   | 5         | —                      | V    |
| Power Dissipation      | P <sub>D</sub>   | 84.00     | —                      | mW   |
| Operating Temperature  | T <sub>opr</sub> | -20 ~ +75 | —                      | °C   |
| Storage Temperature    | T <sub>stg</sub> | -30 ~ +80 | —                      | °C   |
| Junction Temperature   | T <sub>j</sub>   | —         | —                      | °C   |
| Soldering Temperature  | T <sub>sol</sub> | 260       | for 3 sec. max         | °C   |



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

| Characteristic            | Symbol         | Test Condition       | Min | Typ  | Max  | Unit  |
|---------------------------|----------------|----------------------|-----|------|------|-------|
| Forward Voltage           | V <sub>F</sub> | I <sub>F</sub> =20mA | —   | 3.70 | 4.20 | V     |
| Reverse Current           | I <sub>R</sub> | V <sub>R</sub> =5V   | —   | —    | 100  | μA    |
| Power Output              | P <sub>O</sub> | I <sub>F</sub> =     | —   | —    | —    | mW    |
| Radiant Intensity         | I <sub>e</sub> | I <sub>F</sub> =     | —   | —    | —    | mW/sr |
| Half Intensity Beam Angle | θ              | —                    | —   | 30°  | —    | deg.  |
| Peak Wavelength           | λ <sub>p</sub> | I <sub>F</sub> =20mA | —   | 400  | —    | nm    |
| Spectral Line Half Width  | Δλ             | I <sub>F</sub> =20mA | —   | 26   | —    | nm    |

**CAUTION! THIS DEVICE EMITS ULTRAVIOLET RADIATION!** This device radiates intense ultraviolet (UV) light when operated. Most of the UV light emitted is not visible. Exposure to UV radiation can be harmful to your health. Protect your eyes and skin during operation. Do not look directly at the device during operation. Exposure to UV light, even for a brief period, can damage your eyes. Do not operate the device unless you have had proper safety training and take appropriate precautions. Do not permit children or untrained personnel to operate the device.

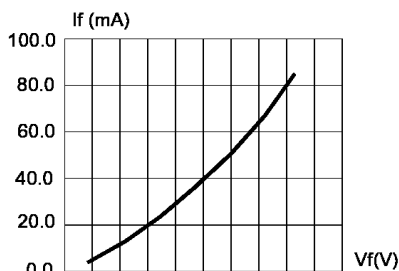


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

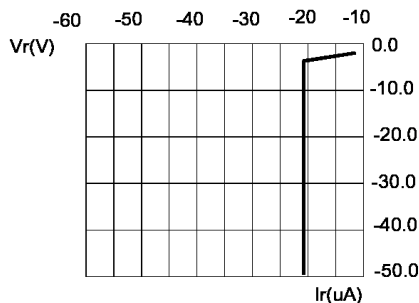


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

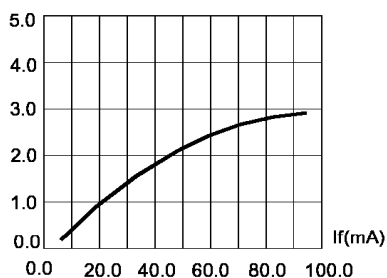


FIG.3 RELATIVE EMISSION INTENSITY VS. FORWARD CURRENT.

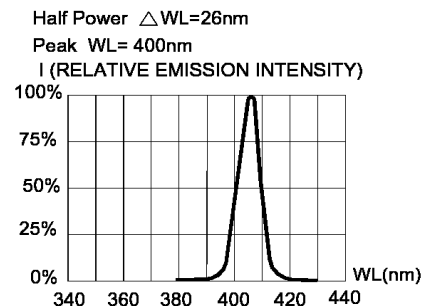


FIG.4 RELATIVE EMISSION INTENSITY VS. WAVELENGTH.

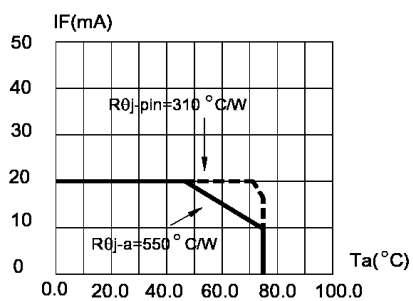


FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE. ( $T_{jmax}=95^{\circ}\text{C}$ )

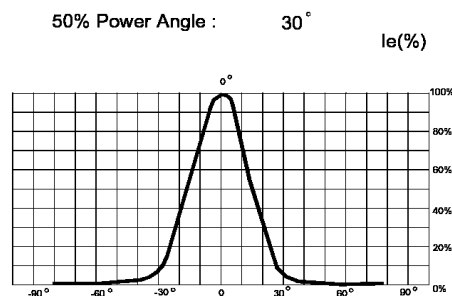


FIG.6 FAR FIELD PATTERN.

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