

### LC512TYL1-25Q

#### Features

- 5mm Package
- High Optical Power
- Low Current Requirement
- Water Clear Lens
- High Luminous Intensity



### ATTENTION

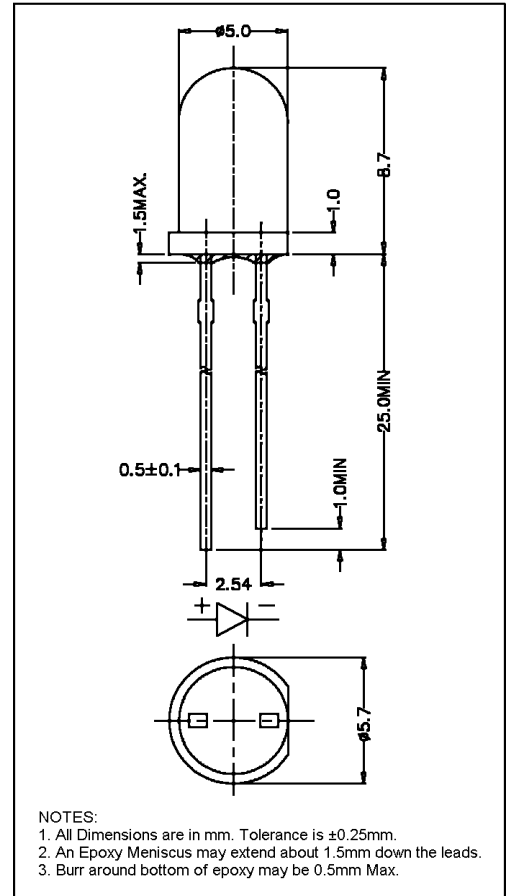
OBSERVE PRECAUTIONS  
ELECTROSTATIC  
SENSITIVE DEVICES

#### Maximum Ratings (Ta=25°C)

| Characteristic        | Symbol           | Max.           | Unit |
|-----------------------|------------------|----------------|------|
| Forward Current       | I <sub>F</sub>   | 50             | mA   |
| Reverse Voltage       | V <sub>R</sub>   | 5.00           | V    |
| Power Dissipation     | P <sub>D</sub>   | 150.00         | mW   |
| Operating Temperature | T <sub>opr</sub> | -40 ~ +95      | °C   |
| Storage Temperature   | T <sub>stg</sub> | -40 ~ +100     | °C   |
| Soldering Temperature | T <sub>sol</sub> | 260            | °C   |
| Soldering Time        | -                | for 3 sec. max | -    |

#### 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 | --      | 2.10    | 2.60 | V    |
| Reverse Current          | I <sub>R</sub>    | V <sub>R</sub> =5V   | -       | -       | 100  | μA   |
| Luminous Intensity       | I <sub>v</sub>    | I <sub>F</sub> =20mA | 2130.00 | 4200.00 | -    | mcd  |
| Viewing Angle            | 2θ <sup>1/2</sup> | -                    | -       | 25°     | -    | deg. |
| Peak Wavelength          | λ <sub>p</sub>    | I <sub>F</sub> =20mA | -       | 594     | -    | nm   |
| Dominant Wavelength      | λ <sub>d</sub>    | I <sub>F</sub> =20mA | -       | 591     | -    | nm   |
| Spectral Line Half Width | Δλ                | I <sub>F</sub> =20mA | -       | 20      | -    | nm   |



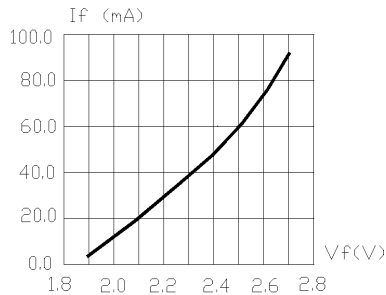


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

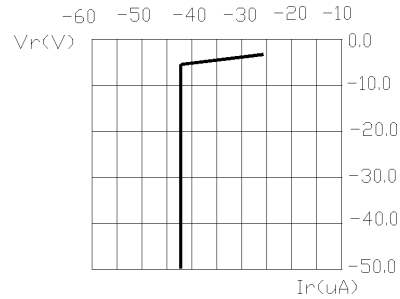


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

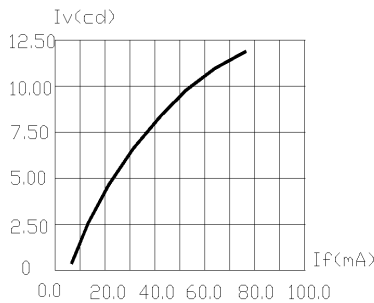


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

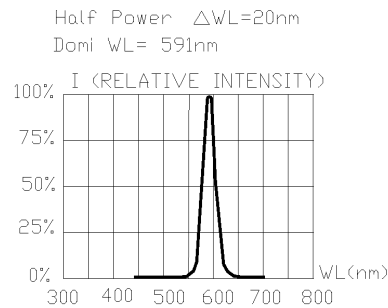


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

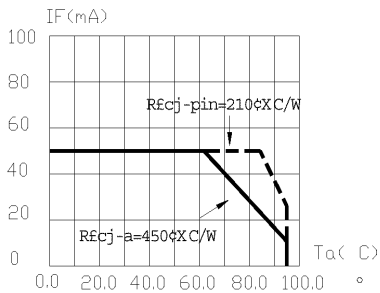


FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON  $T_{jmax}=105^{\circ}C$

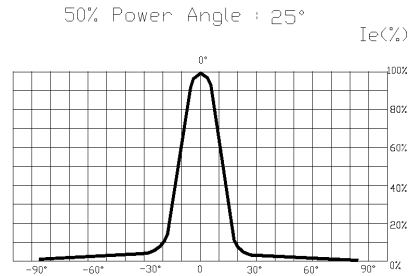


FIG.6 SPATIAL DISTRIBUTION.

- 1.Cathode PAD Area ( $0.18 \times 0.18\text{inch}^2$ )
- 2.Height above nominal seating plane in inches(0.3inch)