

Part No.

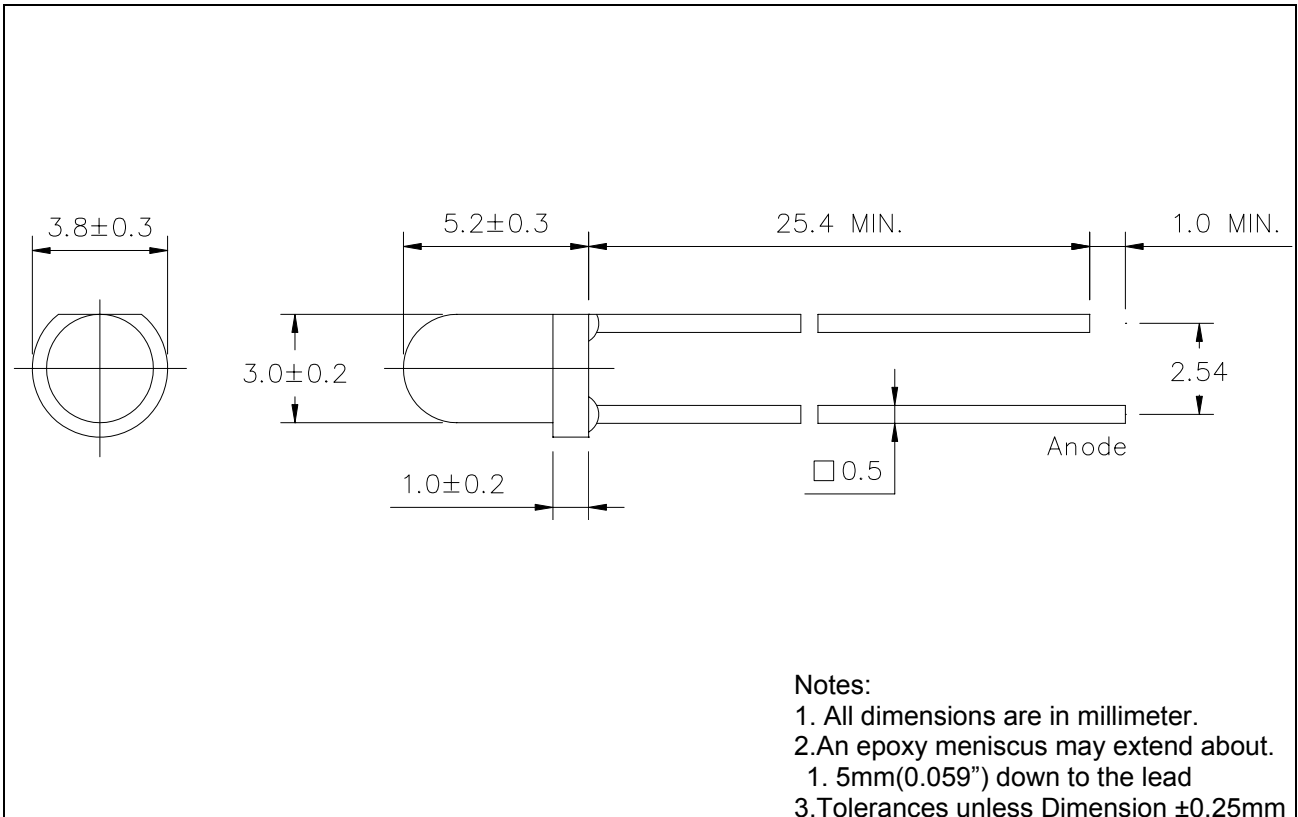
55-537UB-0

3 mm

Round

Type : LED Lamps

Package Dimension :



■ Features :

- Choice of various viewing angles.
- Available on Tape and Reel.
- Reliable and robust.

■ Descriptions :

- The series is specially designed for application requiring higher brightness.
- The LED lamps are available with different colors, intensity, epoxy colors etc.

■ Applications :

- TV set
- Monitor
- Telephone

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| PART NO. | Chip | | Lens Color |
|------------|----------|---------------|-------------|
| | Material | Emitted Color | |
| 55-537UB-0 | InGaN | Blue | Water Clear |

■ Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Rating | Unit |
|--|-----------------------|-------------|------|
| Forward Current | I _F | 20 | mA |
| Operating Temperature | T _{opr} | -40 to +85 | °C |
| Storage Temperature | T _{stg} | -40 to +100 | °C |
| Soldering Temperature | T _{sol} | 260 ± 5 | °C |
| Electrostatic Discharge | ESD | 1000 | V |
| Power Dissipation | P _D | 100 | mW |
| Peak Forward Current (Duty 1/10@1KHz) | I _F (Peak) | 100 | mA |
| Reverse Voltage | V _R | 5 | V |

■ Electronic Optical Characteristics :

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Condition |
|------------------------------|-------------------|------|------|------|------|----------------------|
| Luminous Intensity | I _v | 2000 | 4500 | / | mcd | I _F =20mA |
| Viewing Angle | 2θ _{1/2} | / | 30 | / | deg | I _F =20mA |
| Peak Wavelength | λ _p | / | 475 | / | nm | I _F =20mA |
| Dominant Wavelength | λ _d | 465 | 470 | 475 | nm | I _F =20mA |
| Spectrum Radiation Bandwidth | Δλ | / | 30 | / | nm | I _F =20mA |
| Forward Voltage | V _F | 2.8 | 3.2 | 3.6 | V | I _F =20mA |
| Reverse Current | I _R | / | / | 10 | μA | V _R =5V |

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■ Reliability test items and conditions :

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

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■ Typical Electrical / Optical Characteristics Curves :

Fig.1 Radiation diagram

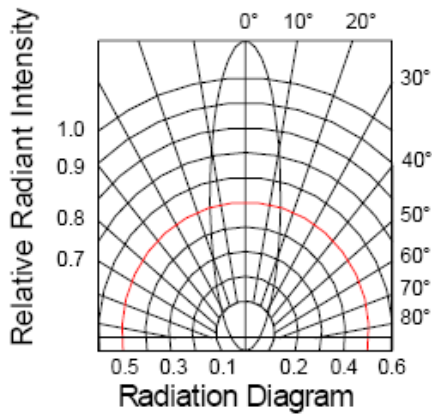


Fig.2 Relative intensity vs. Wavelength

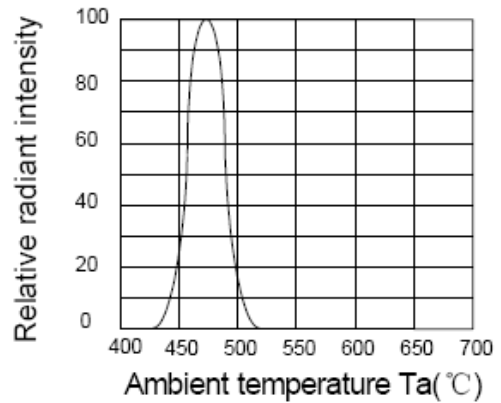


Fig.3 Relative luminous intensity vs. Ambient temperature

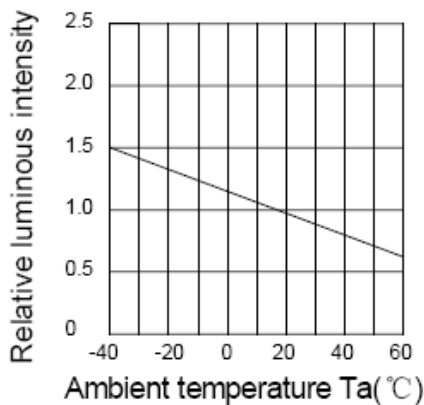


Fig.4 Forward current derating curve Vs. Ambient temperature

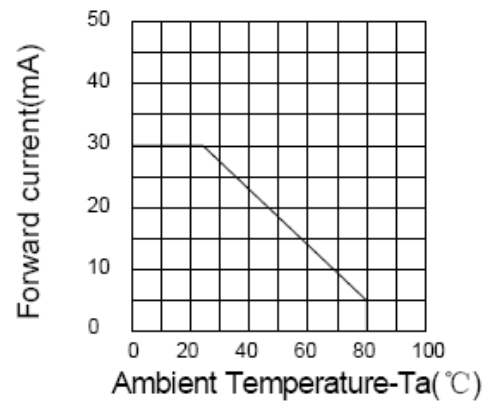


Fig.5 Forward current vs. Forward voltage

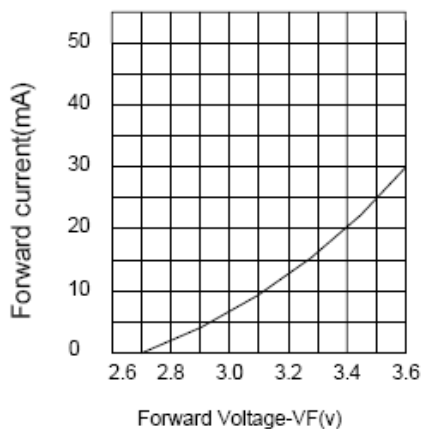


Fig.6 Relative luminous intensity vs. Forward current

