



Electrical/Optical characteristics at T_A = 25°C

| Parameter | Symbol | Min. | Type | Max. | Unit | Test |
|--|-----------|-------|-------|-------|------|-----------|
| Luminous Intensity | IV | 1,500 | 2,200 | 3,500 | mcd | IF = 20mA |
| Viewing Angle | 2θ½ | | 25 | | Deg. | IF = 20mA |
| Peak Emission Wavelength | λp | | 635 | | nm | |
| Dominant Wavelength | λD | 620 | 625 | 630 | nm | IF = 20mA |
| Spectral Line Half-Width | Δλ | | 17 | | nm | |
| Forward Voltage | VF | 1.7 | 2.1 | 2.6 | V | IF = 20mA |
| Power Dissipation | Pd | | | 85 | mW | |
| Peak Forward Current (Duty1/10 @ 1kHz) | IF (Peak) | | | 100 | mA | |
| Recommended Operating Current | IF (Rec) | | 20 | | mA | |

Absolute Maximum Ratings : (T_A = 25°C)

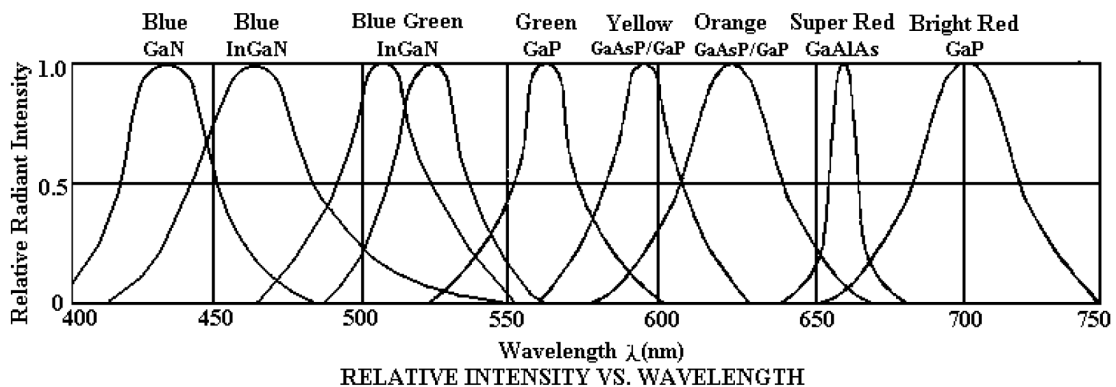
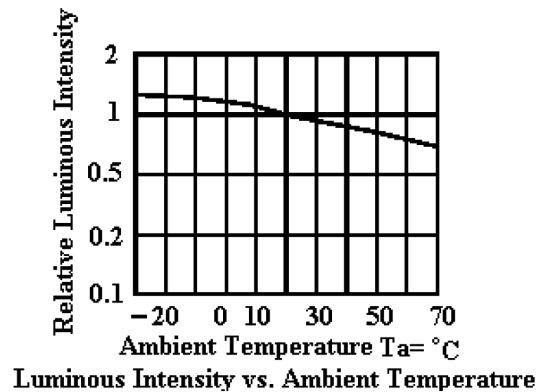
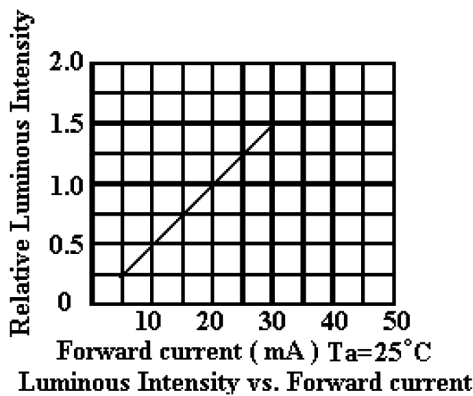
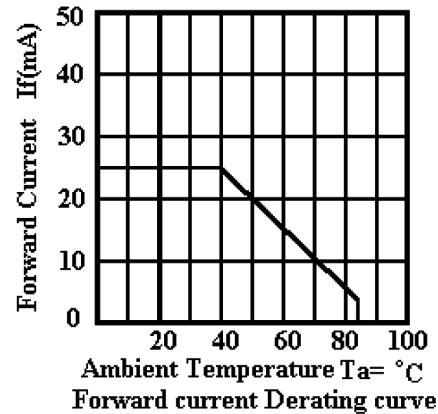
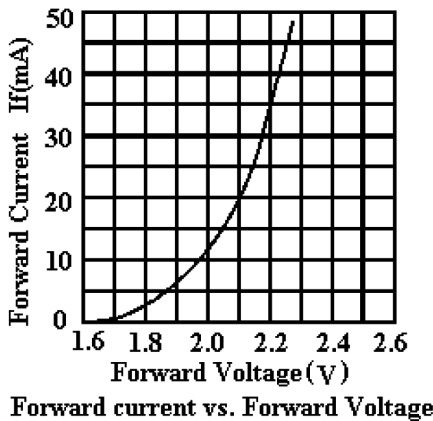
| | |
|---|--------------------------------|
| Reverse Voltage | : 5 Volt |
| Reverse Current | : 10μA (V _R = 5V) |
| Operating Temperature Range | : -40°C to +85°C |
| Storage Temperature Range | : -40°C to +100°C |
| Lead Soldering Temperature Range {1.6mm (1/16 inch) from body} | : 260°C For 5 Seconds |

Reliability test For LED Lamps

| Item | Test Conditions | Test Time/Cycle | Sample Size | Ac/Re |
|-----------------------------------|---|-----------------|-------------|-------|
| DC Operating Life | Temperature : 25°C IF : 20mA | 1,000 Hrs. | 76 Pcs. | 0/1 |
| High Temperature High Humidity | Temperature : 85°C 85%RH | | | |
| High Temperature Storage | Temperature : 100°C | | | |
| Low Temperature Storage | Temperature : -40°C | | | |
| Temperature Cycling | 85°C~ 25°C~ -35°C 15min~ 5min~ 15min | 15 Cycles | | |
| Thermal Shock | 85°C~ 25°C~ -10°C 5min~ 10sec ~ 5min | | | |
| Solder Heat | Temperature : 260°C ±5°C | 10 Sec. | | |

Typical Electro-Optical Characteristics Curves

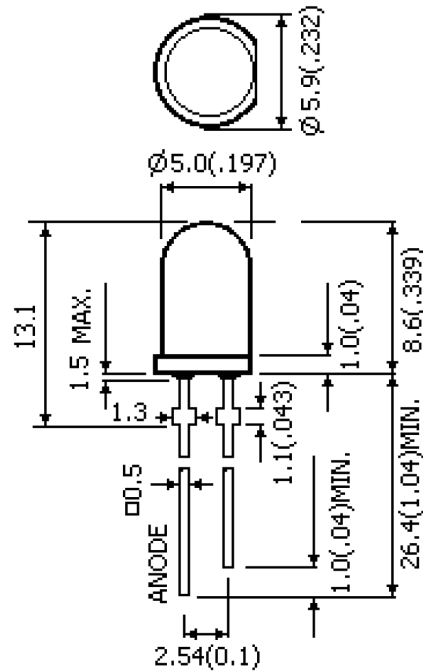
Super Orange (AlInGaP $\lambda_P=635\text{nm}$)



LED, 5mm



Dimensions:



Dimensions : Inches (Millimetres)
All tolerance shall be
 ± 0.01 inch (0.25mm)

Part Number Table

| Description | Part Number |
|-----------------------------------|------------------|
| LED, 5mm, Orange, 2,200mcd, 653nm | MCL053AC-1S(2.8) |

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