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SPC-F008.DWG

REVISIONS

DOC. NO. SPC-F008 * Effective: 7/8/02 * DCP No: 1308

| DCP # | REV | DESCRIPTION | DRAWN | DATE | CHECKD | DATE | APPRVD | DATE |
|-------|-----|---------------------------|-------|----------|--------|----------|--------|----------|
| 1908 | A | RELEASED | EO | 8/7/06 | YA | 8/19/06 | HO | 8/19/06 |
| 1987 | B | Specification Adjustments | JN | 05/23/08 | JN | 05/23/08 | JN | 05/23/08 |



RoHS Compliant

Features:

- High intensity
- Standard T-1 3/4 diameter package
- General purpose LED
- Reliable and rugged

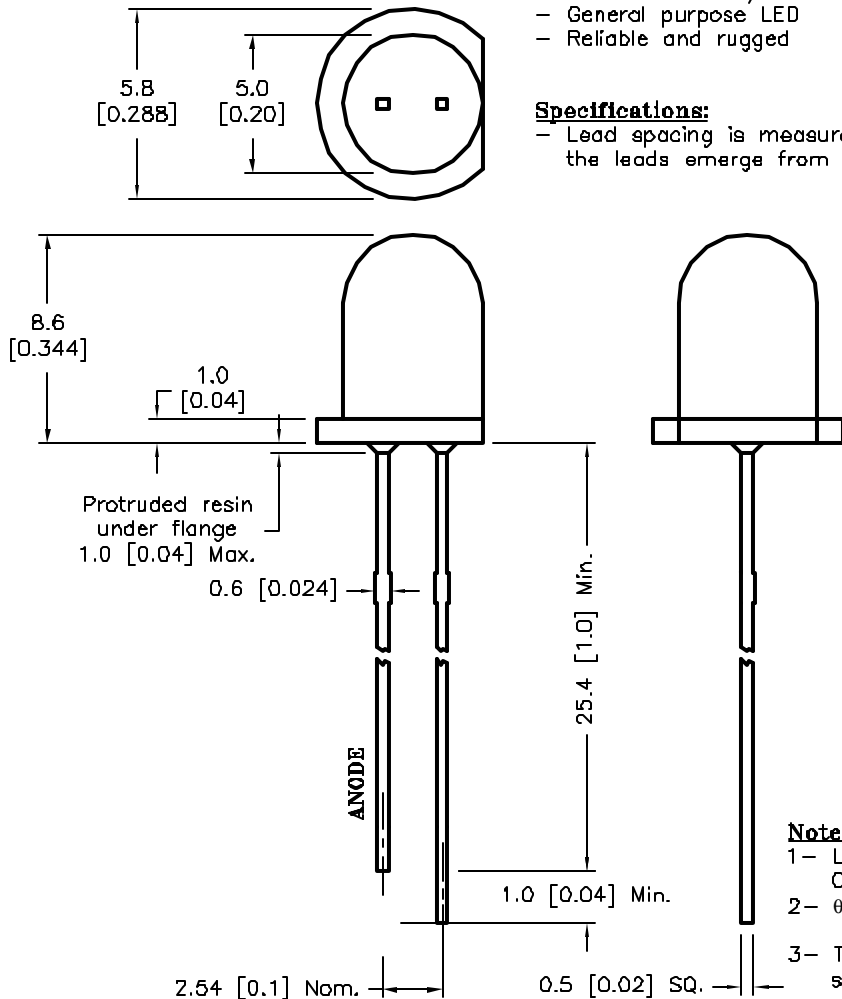
Specifications:

- Lead spacing is measured where the leads emerge from the package

| Source Color | Chip Material | Lens Color |
|--------------|---------------|------------|
| Red | AlGaAs | Diffused |

Absolute Maximum Rating at Ta=25°C

| Parameter | MAX. | Unit |
|---|---------------------|-------|
| Power Dissipation | 80 | mW |
| Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) | 100 | mA |
| Continuous Forward Current | 20 | mA |
| Derating Linear From 50°C | 0.4 | mA/°C |
| Reverse Voltage | 5 | V |
| Operating Temperature Range | -25°C to +80°C | |
| Storage Temperature Range | -40°C to +100°C | |
| Lead Soldering Temperature [4mm (0.157) From Body] | 260°C for 5 seconds | |



Electrical Optical Characteristics at Ta=25°C

| Parameter | Symbol | Min. | Typ. | Max | Unit | Test Condition |
|--------------------------|-----------------|------|------|-----|---------|---------------------|
| Luminous Intensity | I_v | | 120 | | mcd | $I_f=20mA$ (Note 1) |
| Viewing Angle | $2\theta_{1/2}$ | | 30 | | Deg | {Note 2} |
| Peak Emission Wavelength | λ_p | | 640 | | nm | $I_f=20mA$ |
| Dominant Wavelength | λ_d | | 635 | | nm | $I_f=20mA$ (Note 3) |
| Spectral Line Half-Width | $?\lambda$ | | 25 | | nm | $I_f=20mA$ |
| Forward Voltage | V_f | | 2.0 | 2.5 | V | $I_f=20mA$ |
| Reverse Current | I_R | --- | --- | 100 | μA | $V_R=5V$ |

Notes:

- 1- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- 2- $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity
- 3- The dominant wavelength (λ_d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

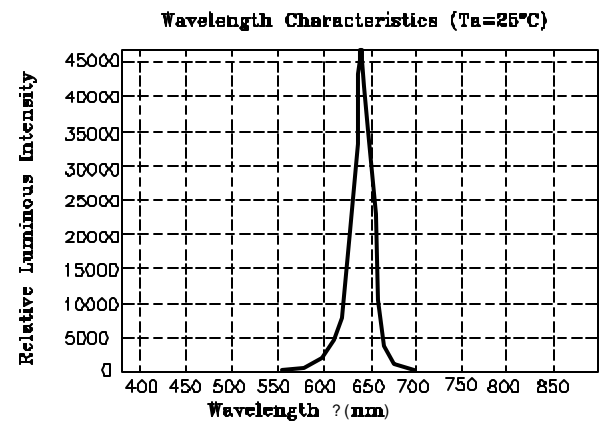
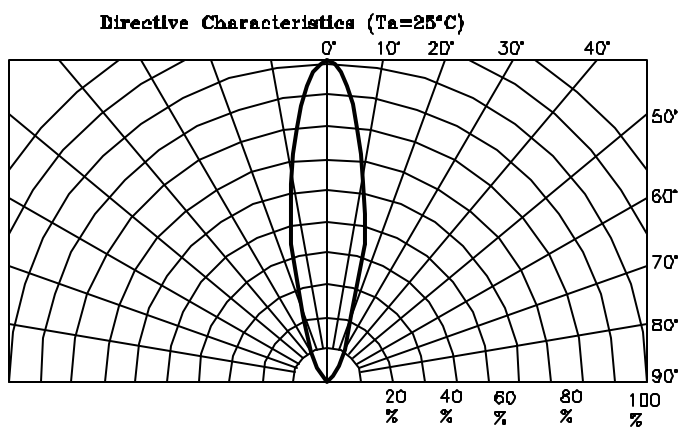
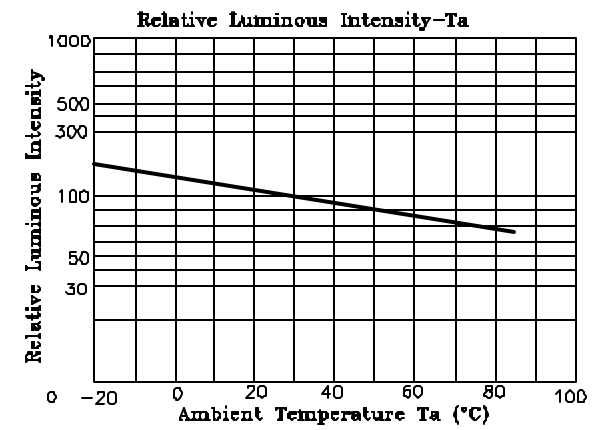
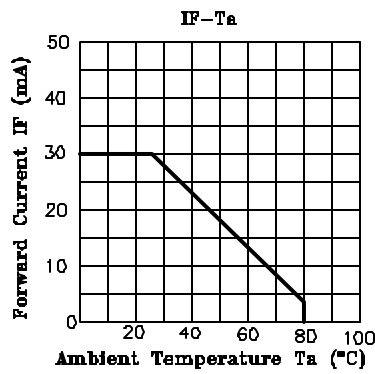
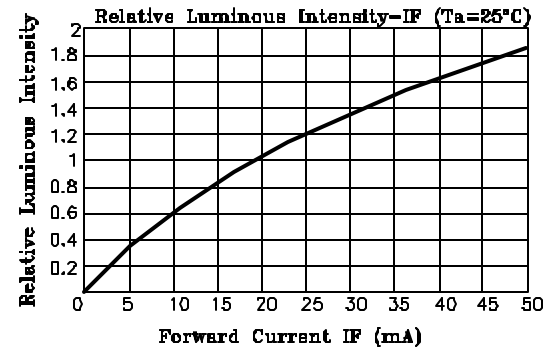
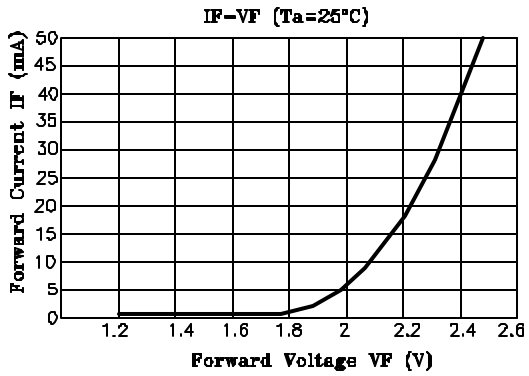
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TOLERANCES:

UNLESS OTHERWISE SPECIFIED,
 ± 0.25 [± 0.010]

| | |
|-----------------|---------|
| DRAWN BY: | DATE: |
| EKLAS ODISH | 6/7/06 |
| CHECKED BY: | DATE: |
| YILMAZ AKYONDEM | 8/19/06 |
| APPROVED BY: | DATE: |
| HISHAM ODISH | 8/19/06 |

| | |
|---|------------------------|
| DRAWING TITLE: Standard LED, Round Lens, 5mm (T1 3/4), Red Emitting Color | |
| SIZE: A | DWG. NO. MV5752 |
| ELECTRONIC FILE: 87K7101.DWG | REV: A |
| SCALE: NTS | U.O.M.: mm [INCHES] |
| SHEET: 1 OF 2 | |



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|------------------|---------------------------|---------------------------------------|-----------------|
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|------------------|---------------------------|---------------------------------------|-----------------|