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SPC-F005.DWG

REVISIONS

DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398

| DCP # | REV | DESCRIPTION | DRAWN | DATE | CHECKD | DATE | APPRVD | DATE |
|-------|-----|-------------|-------|--------|--------|---------|--------|---------|
| 1908 | A | RELEASED | EO | 6/7/06 | YA | 6/19/06 | HO | 6/19/06 |



RoHS Compliant

Features:

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

Specifications:

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

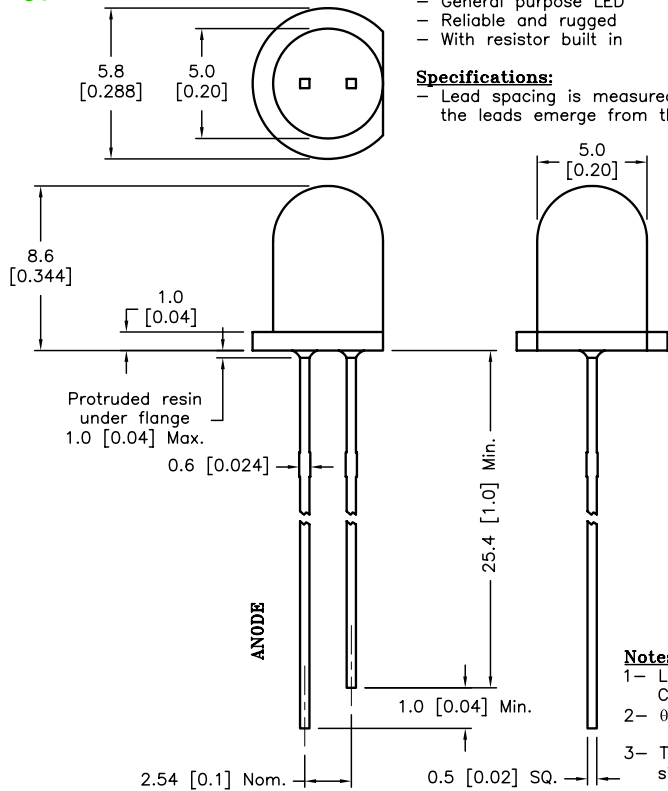
| Source Color | Chip Material | Lens Color |
|--------------|---------------|--------------|
| Red | AlGaAs | Red Diffused |

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 | | 30 | | mcd | $I_f=20\text{mA}$ (Note 1) |
| Viewing Angle | $2\theta_{1/2}$ | | 60 | | Deg | (Note 2) |
| Peak Emission Wavelength | λ_p | | 625 | | nm | $I_f=20\text{mA}$ |
| Dominant Wavelength | λ_d | | 630 | | nm | $I_f=20\text{mA}$ (Note 3) |
| Spectral Line Half-Width | $\Delta\lambda$ | | 25 | | nm | $I_f=20\text{mA}$ |
| Forward Voltage | V_f | | 2.0 | 2.5 | V | $I_f=20\text{mA}$ |
| Reverse Current | I_R | --- | --- | 100 | μA | $V_R=5\text{V}$ |



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.

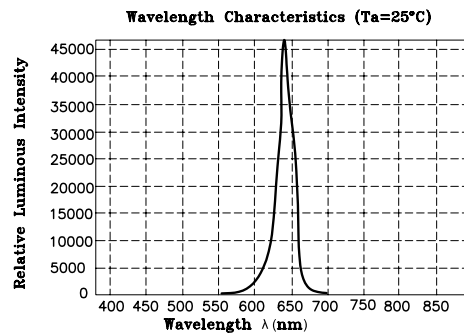
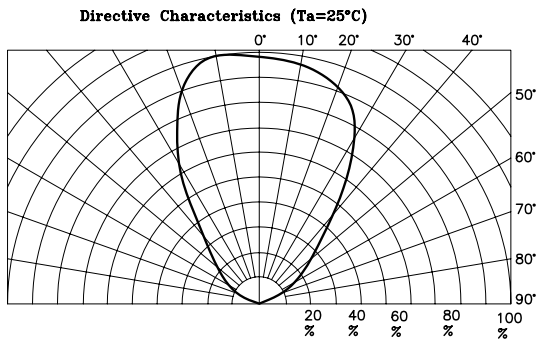
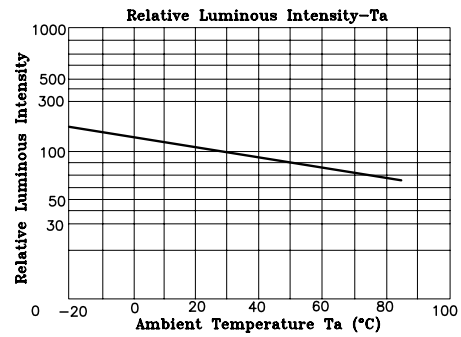
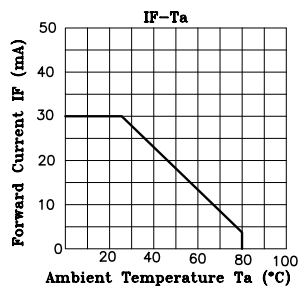
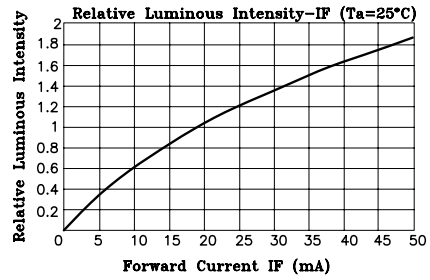
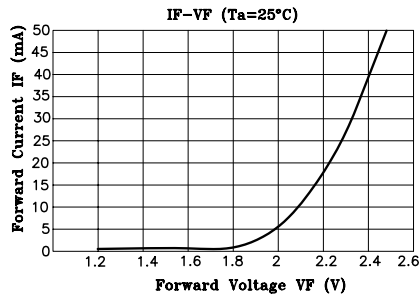
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TOLERANCES:

UNLESS OTHERWISE SPECIFIED,
 ± 0.25 [± 0.010]

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

| | | | |
|---|---------------------|-----------------|-----|
| DRAWING TITLE: Standard LED With 5 Resistor, Round Lens, 5mm (T1 3/4), Red | | | |
| SIZE | DWG. NO. | ELECTRONIC FILE | REV |
| A | MC20426 | 87K7060.DWG | A |
| SCALE: NTS | U.O.M.: mm [INCHES] | SHEET: 1 OF 2 | |



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| | | | |
|------------|---------------------|-----------------|-----|
| SIZE | DWG. NO. | ELECTRONIC FILE | REV |
| A | MC20426 | 87K7060.DWG | A |
| SCALE: NTS | U.O.M.: mm [INCHES] | SHEET: 2 OF 2 | |

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