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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 |



**Features:**

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

| Source Color | Chip Material | Lens Color  |
|--------------|---------------|-------------|
| Green        | InGaN/SiC     | Water Clear |

**Specifications:**

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

**Absolute Maximum Rating at Ta=25°C**

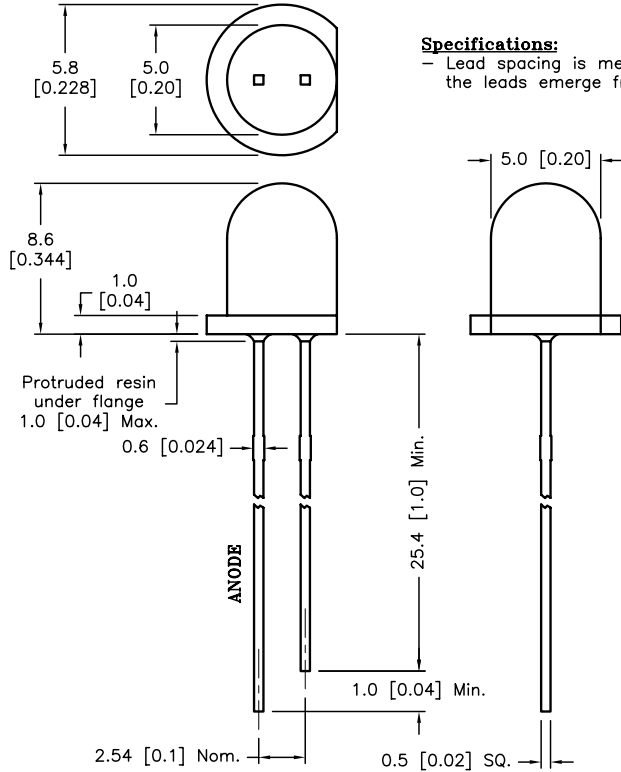
| Parameter   | MAX.                | Unit  |
|---|---------------------|-------|
| Power Dissipation   | 120                 | mW    |
| Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) | 100                 | mA    |
| Continuous Forward Current                                | 30                  | 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       | $I_v$           |      | 3500 |     | mcd           | $I_f=20\text{mA}$ (Note 1) |
| Viewing Angle            | $2\theta_{1/2}$ |      | 20   |     | Deg           | (Note 2)                   |
| Peak Emission Wavelength | $\lambda_p$     |      | 525  |     | nm            | $I_f=20\text{mA}$          |
| Dominant Wavelength      | $\lambda_d$     |      | 527  |     | nm            | $I_f=20\text{mA}$ (Note 3) |
| Spectral Line Half-Width | $\Delta\lambda$ |      | 20   |     | nm            | $I_f=20\text{mA}$          |
| Forward Voltage          | $V_f$           |      | 3.5  | 4.0 | V             | $I_f=20\text{mA}$          |
| Reverse Current          | $I_R$           | ---  | ---  | 50  | $\mu\text{A}$ | $V_R=5\text{V}$            |

**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 ( $\lambda_d$ ) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

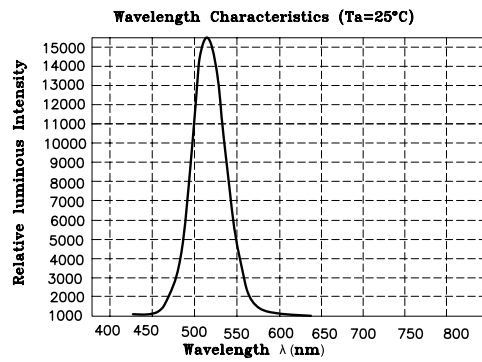
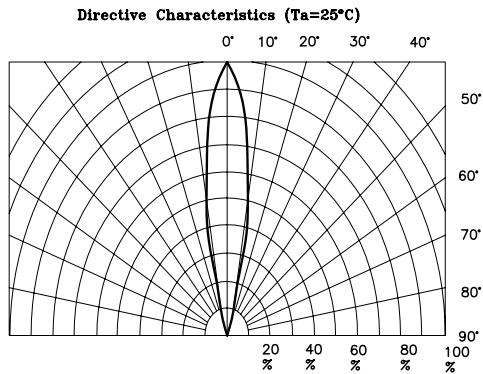
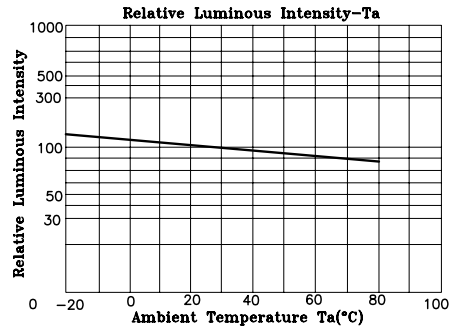
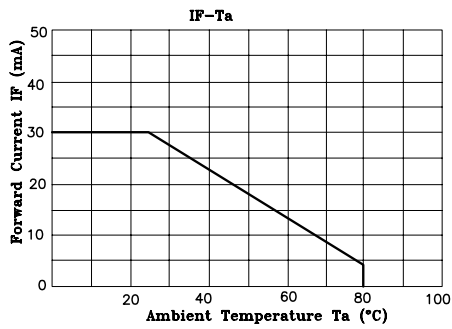
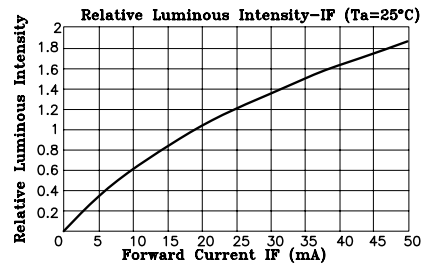
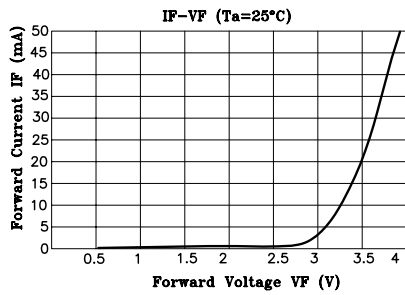


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TOLERANCES:  
UNLESS OTHERWISE SPECIFIED,  
 $\pm 0.25$  [ $\pm 0.010$ ]

|                 |         |
|-----------------|---------|
| 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:<br><b>Super Bright LED, Round Lens, 5mm (T1 3/4), Green Emitting Color</b> |                     |                 |     |
| SIZE  | DWG. NO.            | ELECTRONIC FILE | REV |
| A   | MV8R03              | 87K7111.DWG     | A   |
| SCALE: NTS  | U.O.M.: mm [INCHES] | SHEET: 1 OF 2   |     |



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|            |                     |                 |     |
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| A          | MV8R03              | 87K7111.DWG     | A   |
| SCALE: NTS | U.O.M.: mm [INCHES] | SHEET: 2 OF 2   |     |

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