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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 flat top 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      |
|--------------|---------------|-----------------|
| Yellow       | AlGaAs        | Yellow Diffused |

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

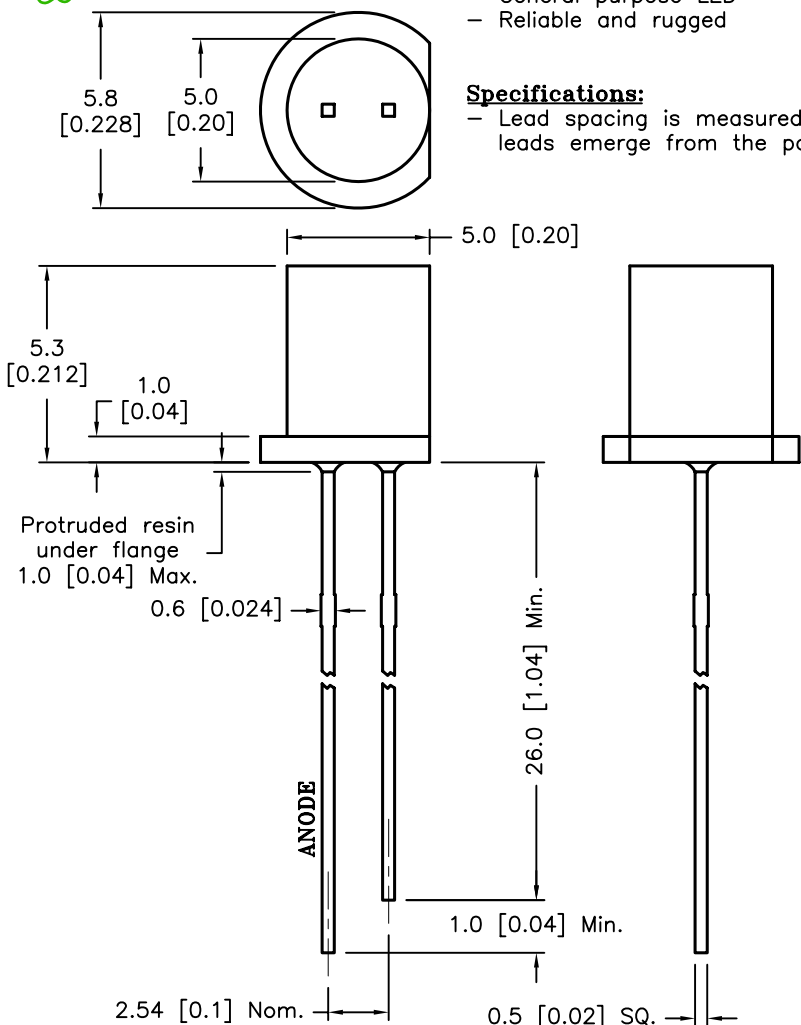
| Parameter                                                 | MAX.                | Unit  |
|-----------------------------------------------------------|---------------------|-------|
| Power Dissipation                                         | 80                  | mW    |
| Peak Forward Current (1/10 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       | $I_v$           |      | 20   |     | mcd           | $I_f=20\text{mA}$ (Note 1) |
| Viewing Angle            | $2\theta_{1/2}$ |      | 100  |     | Deg           | (Note 2)                   |
| Peak Emission Wavelength | $\lambda_p$     |      | 590  |     | nm            | $I_f=20\text{mA}$          |
| Dominant Wavelength      | $\lambda_d$     |      | 585  |     | 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 | $\mu\text{A}$ | $V_R=5\text{V}$            |

### 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.



DISCLAIMER:  
ALL STATEMENTS AND TECHNICAL INFORMATION CONTAINED HEREIN ARE BASED UPON INFORMATION AND/OR TESTS WE BELIEVE TO BE ACCURATE AND RELIABLE. SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE AND ASSUME ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH.

### TOLERANCES:

UNLESS OTHERWISE  
SPECIFIED,  
±0.25 [±0.010]

### DRAWN BY:

EKLAS ODISH

### CHECKED BY:

YILMAZ AKYONDEM

### APPROVED BY:

HISHAM ODISH

### DATE:

6/7/06

### DATE:

6/19/06

### DATE:

6/19/06

### DRAWING TITLE:

Standard LED, Cylindrical Flat Top Lens, 5mm (T1 3/4), Yellow Emitting Color

### SIZE

A

### DWG. NO.

MC20452

### ELECTRONIC FILE

87K7078.DWG

### REV

A

### SCALE:

NTS

### U.O.M.: mm [INCHES]

### SHEET:

1 OF 2

