



**SPC**  
TECHNOLOGY  
SPC-F005.DWG

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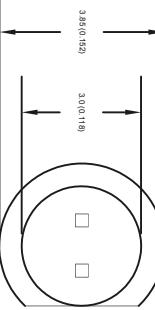
REVISED

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

#### Features:

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

Specifications:



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

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

| Parameter   | Symbol         | Min. | Typ. | Max                 | Unit | Test Condition |
|---|----------------|------|------|---------------------|------|----------------|
| Power Dissipation   |                |      |      | 80                  | mW   |                |
| Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse width) | I <sub>f</sub> | 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 <sub>v</sub>   | 20   |      | mcld         | I=20mA (Note 1)               |                |
| Viewing Angle            | θ <sub>1/2</sub> | 90   |      | Deg (Note 2) |                               |                |
| Peak Emission Wavelength | λ <sub>p</sub>   | 590  |      | nm           | I <sub>f</sub> =20mA          |                |
| Dominant Wavelength      | λ <sub>d</sub>   | 585  |      | nm           | I <sub>f</sub> =20mA (Note 3) |                |
| Spectral Line Half-Width | Δλ               | 25   |      | nm           | I <sub>f</sub> =20mA          |                |
| Forward Voltage          | V <sub>f</sub>   | 1.9  | 2.5  | V            | I=20mA                        |                |
| Reverse Current          | I <sub>R</sub>   | ---  | 100  | μA           | V <sub>R</sub> =5V            |                |

Note:

- 1 - Luminous intensity is measures with a light sensor and filter combination that approximates the CIE eye-response curve.
- 2 - θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity

3 - The dominant wavelength (λ<sub>d</sub>) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

#### TOLERANCES:

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LIABILITY WHATSOEVER IN CONNECTION THEREWITH.

DRAWN BY: DATE: DRAWING TITLE:

AMU 23-08-10 Standard LED, Round Lens, 3mm (T1), Yellow Emitting Color

CHECKED BY: DATE: SIZE DWG. NO.

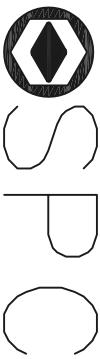
JAG 26-08-10 XXXX

APPROVED BY: DATE: SCALE: U.O.M.: INCHES [mm] SHEET: 1 OF 1

XXX NTS A

| Source Color | Chip Material | Lens Color |
|--------------|---------------|------------|
| Yellow       | GaAsP         | Diffused   |

RoHS  
Compliant



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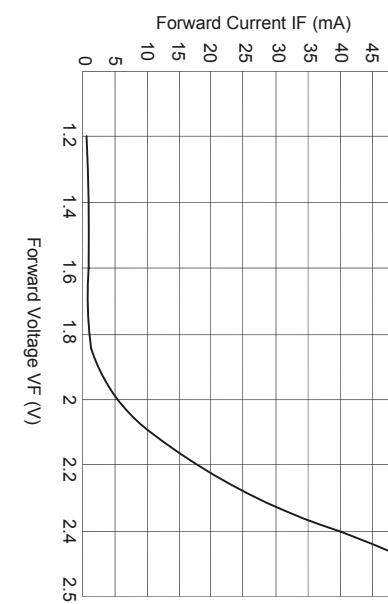
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DOP # REV DESCRIPTION DRAWN DATE CHECKD DATE APPROV'D DATE

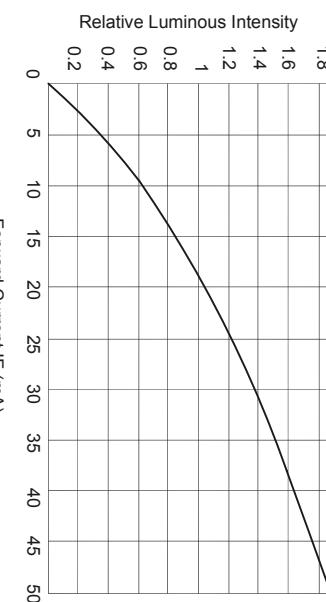
AMU 23-08-10 JAG 26-08-10 XXX 01-09-10

RoHS Compliant

IF-VF ( $T_a=25^\circ C$ )

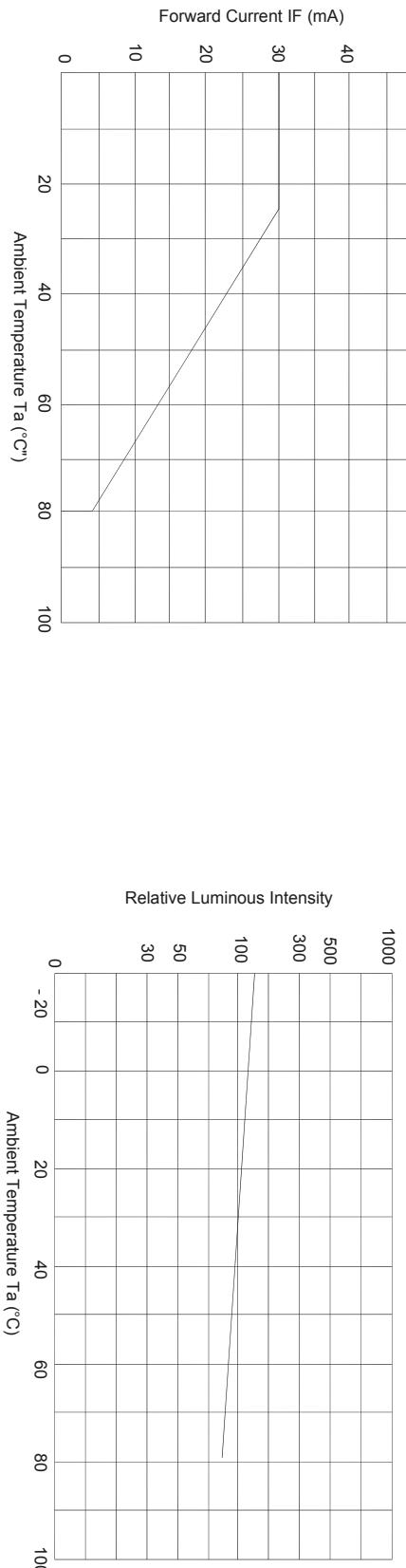


Relative Luminous Intensity -IF ( $T_a=25^\circ C$ )



IF-Ta

Relative Luminous Intensity-Ta



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TOLERANCES:

|              |         |  |                     |                 |
|--------------|---------|--|---------------------|-----------------|
| DRAWN BY:    | DATE:   | DRAWING TITLE:<br>AMU 23-08-10 Standard LED, Round Lens, 3mm (T1), Yellow Emitting Color |                     |                 |
| CHECKED BY:  | DATE:   | SIZE   | DWG. NO.            | ELECTRONIC FILE |
| JAG 26-08-10 | XXXX    | DWG. NO.   | XXXX                | REV A 87K7094   |
| APPROVED BY: | DATE:   | SCALE:   | U.O.M.: INCHES [mm] | SHEET: 1 OF 1   |
| XXX          | 09-0910 | NTS  |                     |                 |



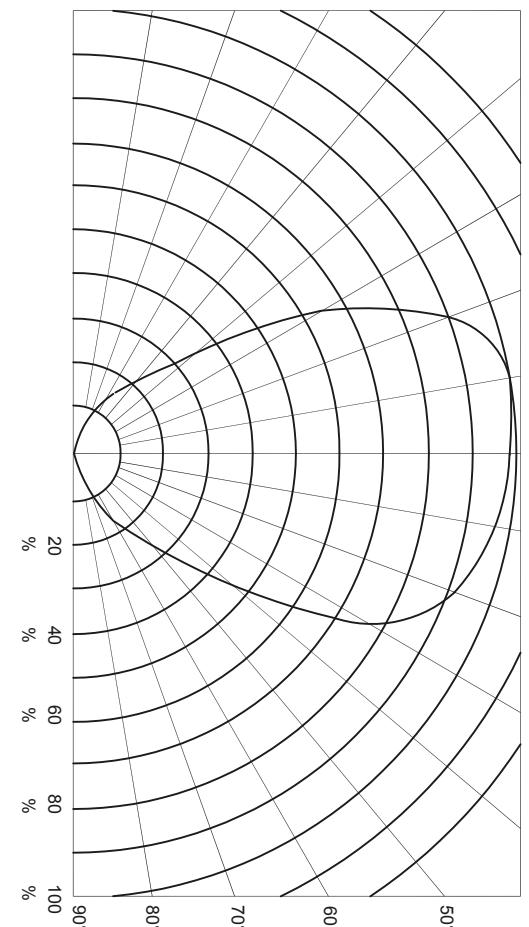
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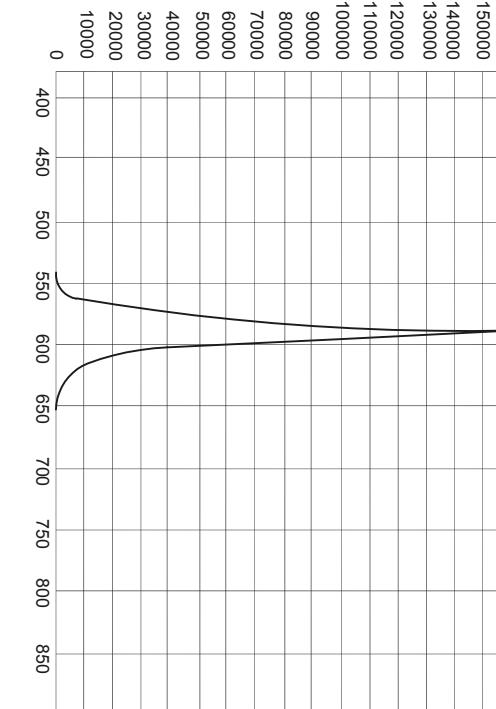
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RoHS  
Compliant

Directive Characteristics ( $T_a=25^\circ C$ )



Wavelength Characteristics ( $T_a=25^\circ C$ )



### Part Number Table

| Description   | Part Number |
|---|-------------|
| Standard LED, Round Lens, 3mm (T1), Yellow Emitting Color | MV5754A     |

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| TOLERANCES:  |     | DRAWN BY: AMU DATE: 23-08-2008 |            | DRAWING TITLE: Standard LED, Round Lens, 3mm (T1), Yellow Emitting Color |                               |
|--------------|-----|--------------------------------|------------|--|-------------------------------|
| CHECKED BY:  |     | DATE: 26-08-10                 | SIZE XXXX  | DWG. NO. XXXX  | ELECTRONIC FILE 87K7094 REV A |
| APPROVED BY: |     | DATE: 09-09-10                 | SCALE: NTS | U.O.M.: INCHES [mm]  | SHEET: 1 OF 1                 |
|              | XXX |                                |            |  |                               |