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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 diameter package
- General purpose LED
- Reliable and rugged

Source Color	Chip Material	Lens Color
Red	GaAsP	White Diffused
Yellow		

### Specifications:

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

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

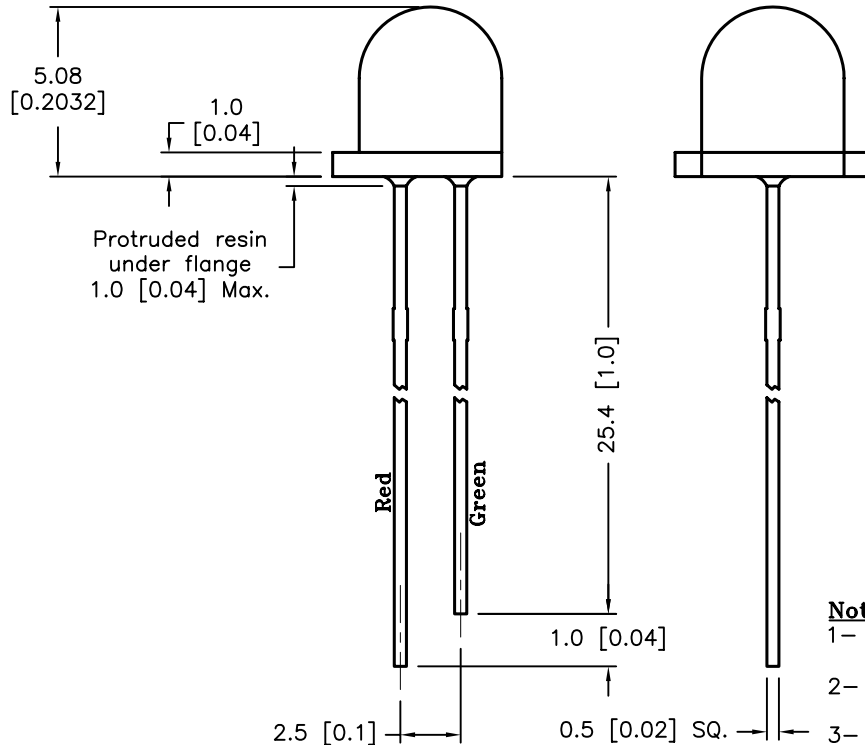
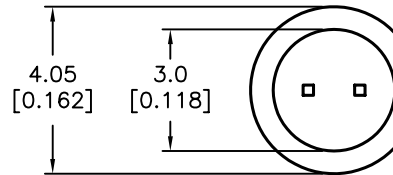
Parameter	MAX.	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	30	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-25°C to +80°C	
Storage Temperature Range	-40°C to +100°C	
Lead Soldering Temperature [4mm (0.157) From Body]	260°C for 5 seconds	

### Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Colour	Typ.	Max	Unit	Test Condition
Luminous Intensity	$I_v$	Red	30	---	mcd	$I_f=20\text{mA}$ (Note 1)
		Yellow	30	---		
Viewing Angle	$2\theta_{1/2}$	---	60	---	Deg	(Note 2)
Dominant Wavelength	$\lambda_d$	Red	640	648	nm	$I_f=20\text{mA}$ (Note 3)
		Yellow	585	590		
Spectral Line Half-Width	$\Delta\lambda$	---	20	25	nm	$I_f=20\text{mA}$
Forward Voltage	$V_f$	Red	1.8	2.4	V	$I_f=20\text{mA}$
		Yellow	1.9	2.5		
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.



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### TOLERANCES:

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

DRAWN BY:	DATE:
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CHECKED BY:	DATE:
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### DRAWING TITLE:

Bi-color LED, Round Lens, 3mm (T1), Red/Yellow

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MC20394	87K7031.DWG	A
SCALE: NTS	U.O.M.: mm [INCHES]	SHEET: 1 OF 1	