



ALL RIGHTS RESERVED. NO PORTION OF THIS PUBLICATION, WHETHER IN WHOLE OR IN PART, CAN BE REPRODUCED WITHOUT THE EXPRESS WRITTEN CONSENT OF SPC TECHNOLOGY.

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 Reliability
- Standard T-1 3/4 diameter package
- High Radiant Intensity
- Reliable and rugged

### Specifications:

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

Source Color	Chip Material	Lens Color
Red	AlGaAs	Milky Diffused
Yellow Green	GaP	

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

Parameter	MAX.		Unit
	Red	Yellow Green	
Power Dissipation	100	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	100	mA
Continuous Forward Current	30	30	mA
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	40	---	mcd	$I_f=20\text{mA}$ (Note 1)
		YG	35	---		
Viewing Angle	$2\theta_{1/2}$	---	60	---	Deg	(Note 2)
Peak Emission Wavelength	$\lambda_P$	Red	660	---	nm	$I_f=20\text{mA}$
		YG	570	---		
Dominant Emission Wavelength	$\lambda_d$	Red	645	---	nm	$I_f=20\text{mA}$
		YG	568	---		
Spectral Line Half-Width	$\Delta\lambda$	---	25	---	nm	$I_f=20\text{mA}$
Forward Voltage	$V_f$	Red	1.85	---	V	$I_f=20\text{mA}$
		YG	1.9	---		
Reverse Current	$I_R$	Red	---	100	$\mu\text{A}$	$V_R=5\text{V}$
		YG	---	100		

### Notes:

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity
- 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,  
 $\pm 0.25$  [ $\pm 0.010$ ]

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:			
Bi-color LED, Round Lens, 5mm (T1 3/4), Red /Yellow Green			
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MC20414	87K7048.DWG	A
SCALE:	NTS	U.O.M.: mm [INCHES]	SHEET: 1 OF 1