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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
Red	AlGaAs	Red 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		25		mcd	$I_f=20\text{mA}$ (Note 1)
Viewing Angle	$2\theta_{1/2}$		100		Deg	(Note 2)
Peak Emission Wavelength	λ_p		640		nm	$I_f=20\text{mA}$
Dominant Wavelength	λ_d		635		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	μA	$V_R=5\text{V}$

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 (λ_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,
 ± 0.25 [± 0.010]

DRAWN BY:	DATE:
EKLAS ODISH	6/7/06
CHECKED BY:	DATE:
YILMAZ AKYONDEM	6/19/06
APPROVED BY:	DATE:
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DRAWING TITLE: Standard LED, Cylindrical Flat Top Lens, 5mm (T1 3/4), Red Emitting Color			
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MC20454	87K7080.DWG	A
SCALE:	NTS	U.O.M.: mm [INCHES]	SHEET: 1 OF 2

