



IR Emitter and Detector Product Data Sheet

LTE-302

Spec No.: DS-50-92-0009

Effective Date: 04/12/2000

Revision: B

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

ABSOLUTE MAXIMUM RATINGS AT TA=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation	75	mW
Peak Forward Current (300pps, 10 μ s pulse)	1	A
Continuous Forward Current	50	mA
Reverse Voltage	5	V
Operating Temperature Range	-40°C to + 85°C	
Storage Temperature Range	-55°C to + 100°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION	BIN NO.
Aperture Radiant Incidence	Ee	0.088		0.168	mW/cm ²	I _F = 20mA	BIN B
		0.112		0.204			BIN C
		0.136		0.240			BIN D
		0.160		0.288			BIN E
		0.192					BIN F
Radiant Intensity	I _E	0.662		1.263	mW/sr	I _F = 20mA	BIN B
		0.842		1.534			BIN C
		1.023		1.805			BIN D
		1.203		2.165			BIN E
		1.444					BIN F
Peak Emission Wavelength	λ_{Peak}		940		nm	I _F = 20mA	
Spectral Line Half-Width	$\Delta \lambda$		50		nm	I _F = 20mA	
Forward Voltage	V _F		1.2	1.6	V	I _F = 20mA	
Reverse Current	I _R			100	μ A	V _R = 5V	
Viewing Angle (See FIG.6)	2 $\theta_{1/2}$		40		deg.		

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

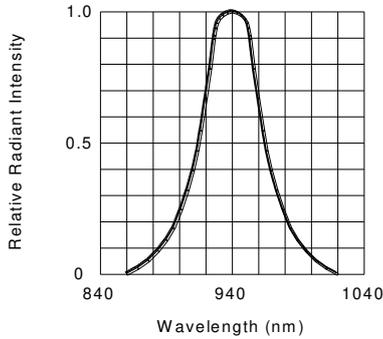


FIG.1 SPECTRAL DISTRIBUTION

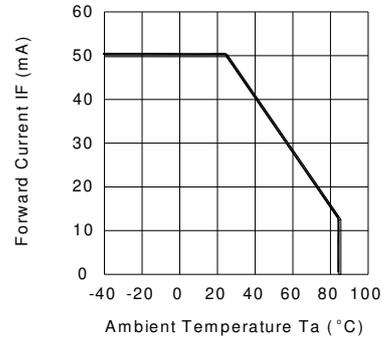


FIG.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

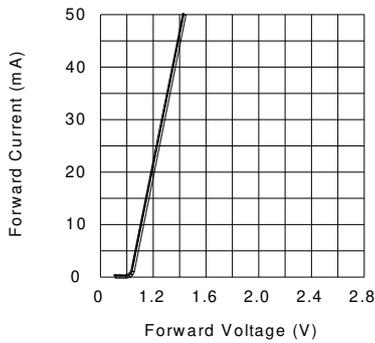


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

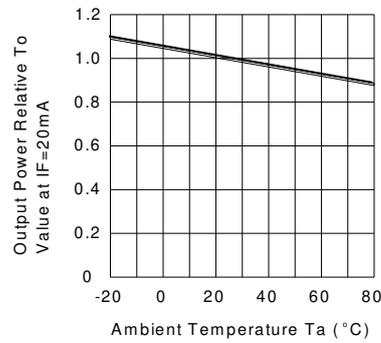


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

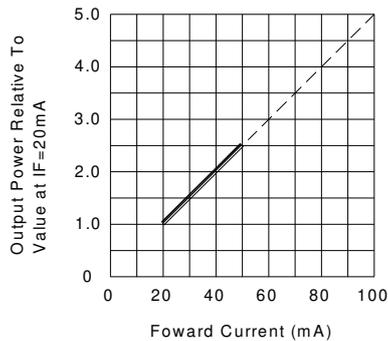


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

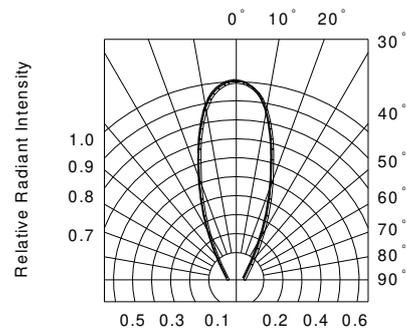


FIG.6 RADIATION DIAGRAM