



# IR Emitter and Detector Product Data Sheet

## LTE-3271BL

Spec No.: DS50-2003-020

Effective Date: 04/28/2004

Revision: A

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4





# LITE-ON TECHNOLOGY CORPORATION.

Property of Lite-On Only

## ABSOLUTE MAXIMUM RATINGS AT TA=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation	150	mW
Peak Forward Current (300pps, 10 μs pulse)	2	A
Continuous Forward Current	100	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 GRADE
Radiant Intensity	IE	30			mW/sr	IF = 100mA	BIN B
		44			mW/sr	IF = 100mA	BIN C
		52			mW/sr	IF = 100mA	BIN D
		62			mW/sr	IF = 100mA	BIN E
Peak Emission Wavelength	λP		940		nm	IF = 20mA	
Spectral Line Half-Width	Δλ		50		nm	IF = 20mA	
Forward Voltage	VF		1.25	1.6	V	IF = 50mA	
Forward Voltage	VF		1.85	2.3	V	IF = 500mA	
Reverse Current	IR			100	μA	VR = 5V	
Viewing Angle (See FIG.6)	2θ1/2		50		deg.		

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

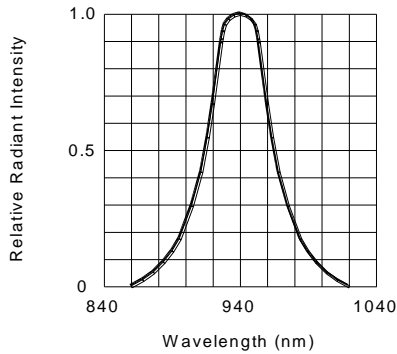


FIG.1 SPECTRAL DISTRIBUTION

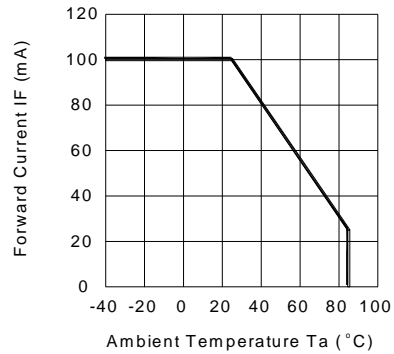


FIG.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

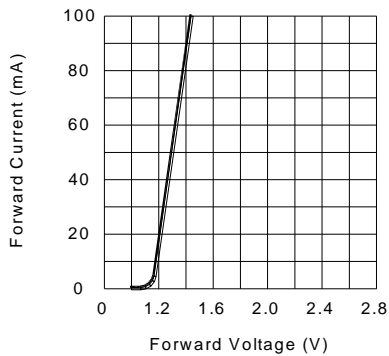


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

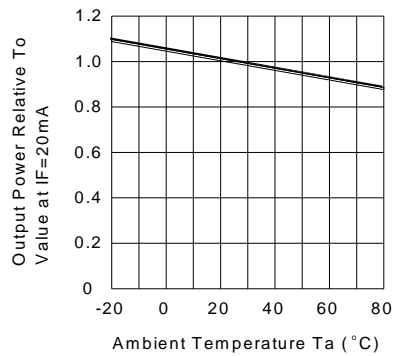


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

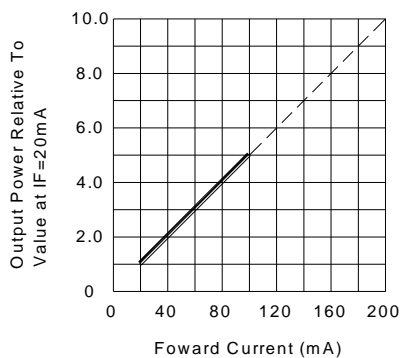


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

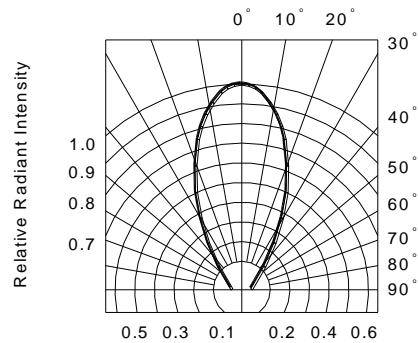


FIG.6 RADIATION DIAGRAM