



# IR Emitter and Detector Product Data Sheet

LTE-3271B

Spec No.: DS50-2003-037

Effective Date: 01/29/2013

Revision: C

**LITE-ON DCC**

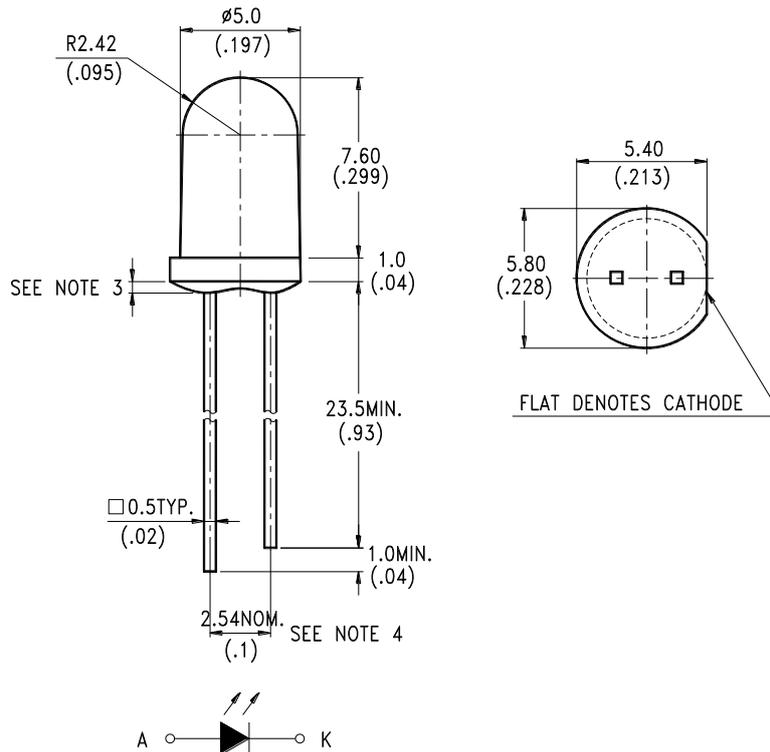
**RELEASE**

BNS-OD-FC001/A4

## FEATURES

- \* SPECIAL FOR HIGH CURRENT AND LOW FORWARD VOLTAGE
- \* HIGH POWER
- \* AVAILABLE FOR PULSE OPERATING
- \* WIDE VIEWING ANGLE

## PACKAGE DIMENSIONS



### NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}(.010\text{'})$  unless otherwise noted.
3. Protruded resin under flange is  $1.5\text{mm}(.059\text{'})$  max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.

## ABSOLUTE MAXIMUM RATINGS AT TA=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation	150	mW
Peak Forward Current (300pps, 10 $\mu$ s 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
Aperture Radiant Incidence	Ee	0.8		1.51	mW/cm <sup>2</sup>	IF = 20mA	BIN A
		1.01		1.66			BIN B
		1.10		2.08			BIN C
		1.38		2.47			BIN D
		1.65		--			BIN E
Radiant Intensity	IE	6		11.32	mW/sr	IF = 20mA	BIN A
		7.57		12.45			BIN B
		8.25		15.6			BIN C
		10.35		18.52			BIN D
		12.37		--			BIN E
Peak Emission Wavelength	$\lambda_P$		940		nm	IF = 20mA	
Spectral Line Half-Width	$\Delta \lambda$		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	$\mu$ A	VR = 5V	
Viewing Angle (See FIG.6)	$2\theta_{1/2}$		50		deg.		

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

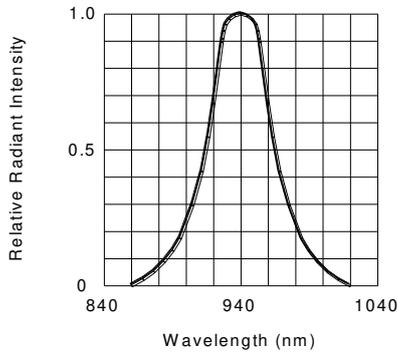


FIG.1 SPECTRAL DISTRIBUTION

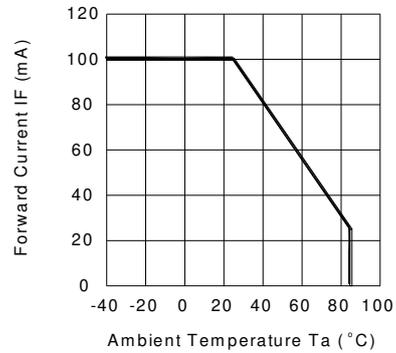


FIG.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

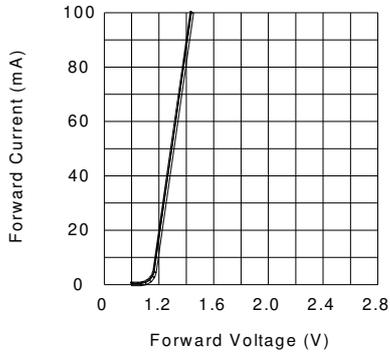


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

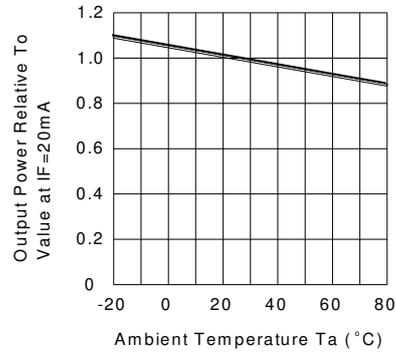


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

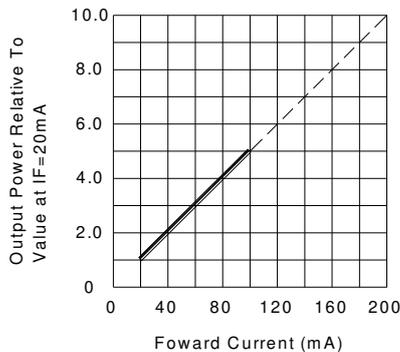


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

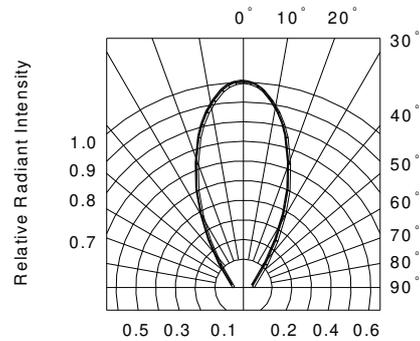


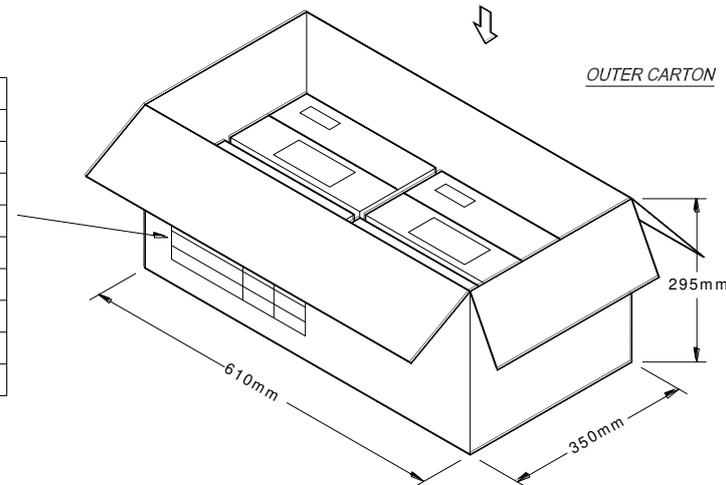
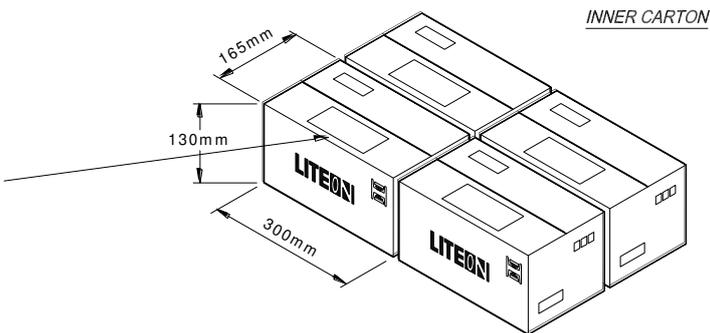
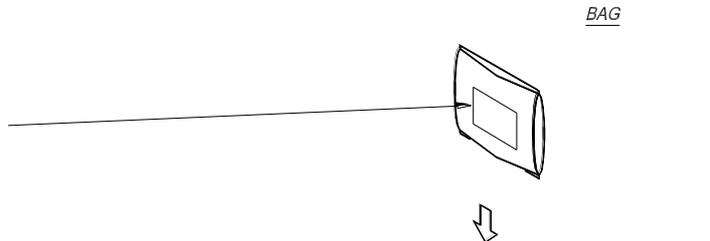
FIG.6 RADIATION DIAGRAM

## PACKING

<b>LITEON</b>	
LITE-ON TECHNOLOGY CORP.	
CUSTOMER:	_____
DEVICE TYPE:	LTE-3271B
BIN GRADE:	_____
LOT NO.:	_____
Q'TY:	_____
RMK:	_____

CUSTOMER	:	_____
CUSTOMER P/N	:	_____
DEVICE TYPE	:	_____
BIN	:	LTE-3271B
COLOR RANK	:	_____
QUANTITY	:	_____
Q. C STAMP	:	_____

DIVICE NO.	BIN	QUANTITY
LTE-3271B		
Q.C STAMP		



Bag volume (pcs / Bag)	Inner carton volume (Bag / carton)	Outer carton volume (Box / Carton)	Total volume (pcs/outer carton)
1000	8	8	64000