LITEON®
OPTOELECTRONICS

IR Emitter and Detector

Product Data Sheet

LTE-4209

Spec No.: DS50-2008-0045

Effective Date: 02/19/2008

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

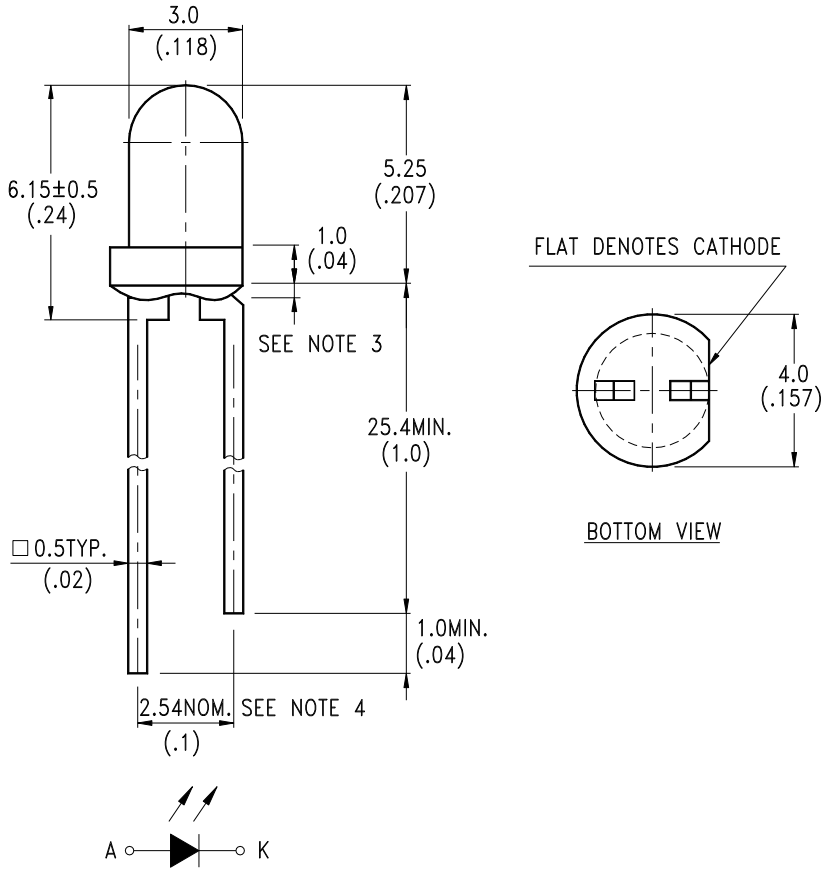
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FEATURES

* SELECTED TO SPECIFIC ON-LINE INTENSITY AND RADIANT INTENSITY RANGES
* LOW COST MINIATURE PLASTIC END LOOKING PACKAGE
* MECHANICALLY AND SPECTRALLY MATCHED TO THE LTR-4206 SERIES OF PHOTOTRANSISTOR
* CLEAR TRANSPARENT COLOR PACKAGE

PACKAGE DIMENSIONS



NOTES:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm(.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm(.039") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.

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ABSOLUTE MAXIMUM RATINGS AT TA=25℃

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation	90	mW
Peak Forward Current (300pps, 10 μs pulse)	1	A
Continuous Forward Current	60	mA
Reverse Voltage	5	V
Operating Temperature Range	-40℃ to + 85℃	
Storage Temperature Range	-55℃ to + 100℃	
Lead Soldering Temperature [1.6mm(.063") From Body]	260℃ for 5 Seconds	

ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25℃

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION	BIN NO.
Aperture Radiant Incidence	Ee	3.2	--	6.6	mW/cm^2	I_F = 50mA	BIN A
		4.4	--	--			BIN B
Radiant Intensity	I_E	24.0	--	49.5	mW/sr	I_F = 50mA	BIN A
		33.0	--	--			BIN B
Peak Emission Wavelength	λ_{Peak}	--	850	--	nm	I_F = 50mA.	
Spectral Line Half-Width	$\Delta\lambda$	--	40	--	nm	I_F = 50mA	
Forward Voltage	V_F	--	1.5	1.8	V	I_F = 50mA	
	V_F	--	1.8	2.3	V	I_F = 200mA	
Reverse Current	V_R	5	--	--	V	I_R =10 μA	
Viewing Angle (See FIG.6)	$2\theta_{1/2}$	--	25	--	deg.		

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TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25℃ Ambient Temperature Unless Otherwise Noted)

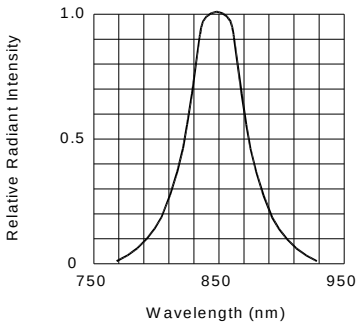


FIG.1 SPECTRAL DISTRIBUTION

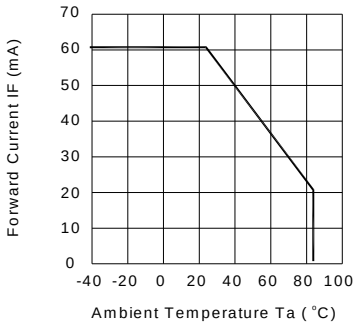


FIG.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

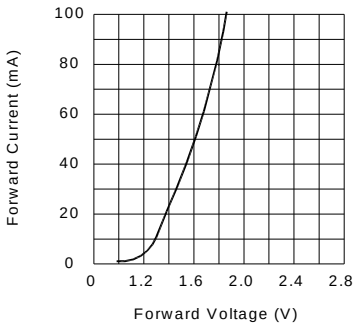


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

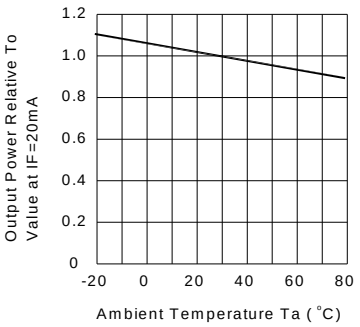


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

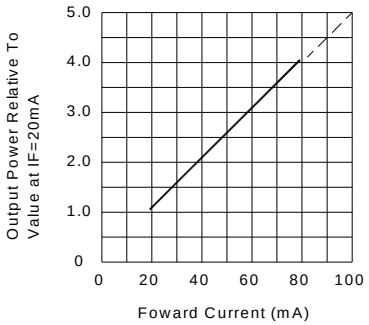


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

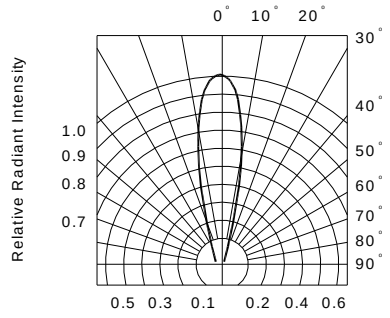


FIG.6 RADIATION DIAGRAM

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