Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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LITEON®
OPTOELECTRONICS

IR Emitter and Detector

Product Data Sheet

LTE-4208

Spec No.: DS-50-92-0015

Effective Date: 05/21/2004

Revision: C

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LITE-ON Technology Corp. / Optoelectronics
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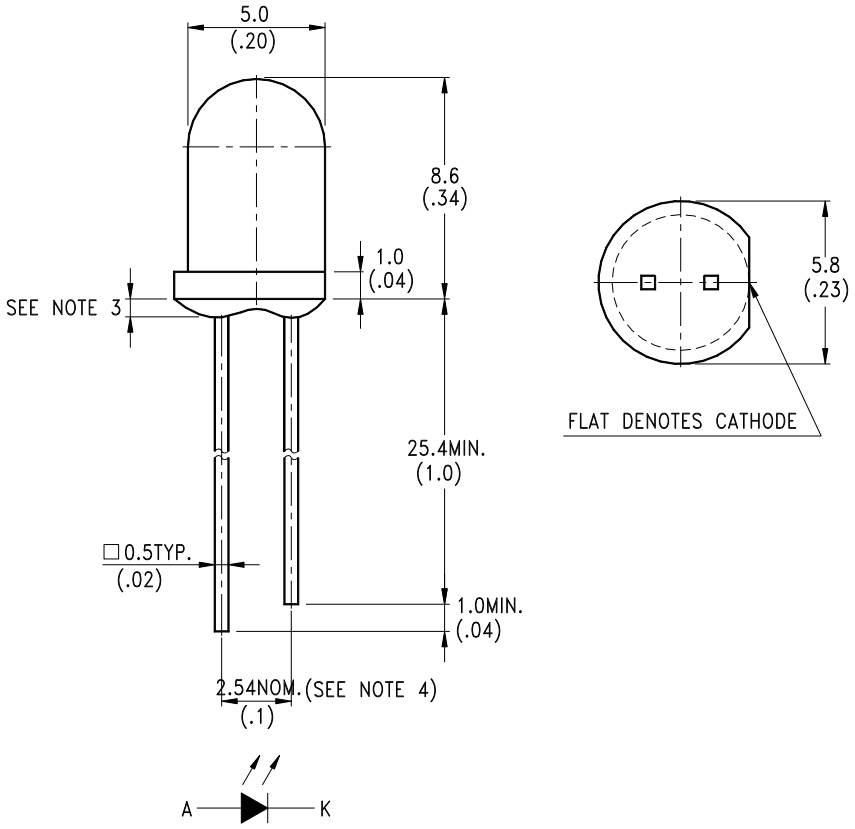
FEATURES

* SELECTED TO SPECIFIC ON-LINE INTENSITY AND RADIANT INTENSITY RANGES
* LOW COST MINIATURE PLASTIC END LOOKING PACKAGE
* MECHANICALLY AND SPECTRALLY MATCHED TO THE LTR-3208 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.

ABSOLUTE MAXIMUM RATINGS AT T_A=25℃

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation	100	mW
Peak Forward Current (300pps, 10 μs pulse)	3	A
Continuous Forward Current	50	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 T_A=25℃

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION	BIN NO.
Aperture Radiant Incidence	Ee	0.44		0.96	mW/cm²	I_F = 20mA	BIN A
		0.64		1.20			BIN B
		0.80		1.68			BIN C
		1.12		1.94			BIN D1
		1.30		2.54			BIN D2
		1.70		3.14			BIN D3
		2.10					BIN D4
Radiant Intensity	I_E	3.31		7.22	mW/sr	I_F = 20mA	BIN A
		4.81		9.02			BIN B
		6.02		12.63			BIN C
		8.40		14.58			BIN D1
		9.72		19.08			BIN D2
		12.72		23.58			BIN D3
		15.72					BIN D4
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	μA	V_R = 5V	
Viewing Angle (See FIG.6)	$2\theta_{1/2}$		20		deg.		

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25℃ Ambient Temperature Unless Otherwise Noted)

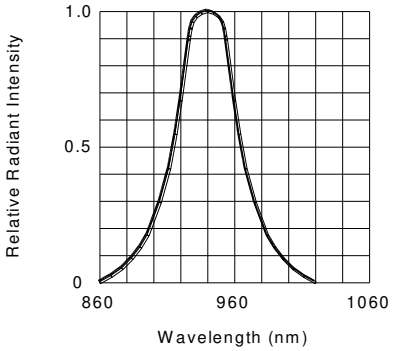


FIG.1 SPECTRAL DISTRIBUTION

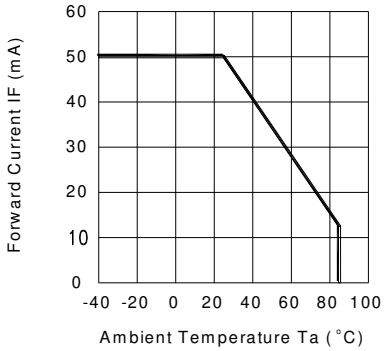


FIG.2 FORWARD CURRENT VS. AMBIENT TEMPERATURE

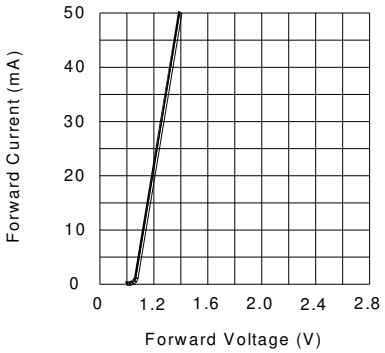


FIG.3 FORWARD CURRENT VS. FORWARD VOLTAGE

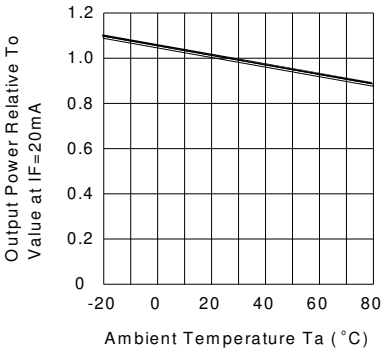


FIG.4 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

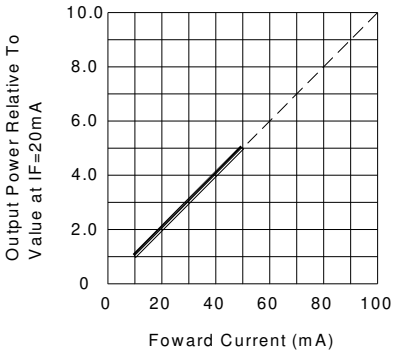


FIG.5 RELATIVE RADIANT INTENSITY VS. FORWARD CURRENT

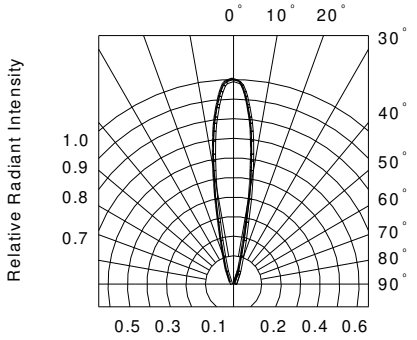


FIG.6 RADIATION DIAGRAM