



**Spec No.: DS-50-92-0072** Effective Date: 08/14/2002

Revision: D

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4

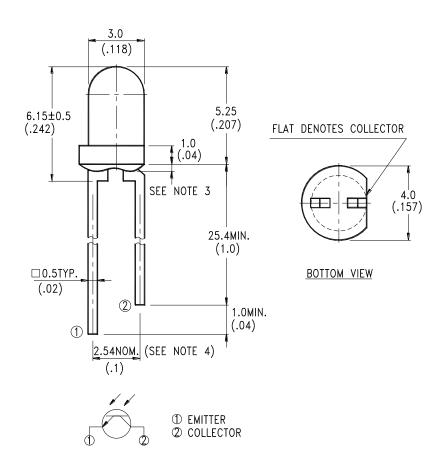
## LITEON TECHNOLOGY CORPORATION

Property of LITE-ON Only

#### **FEATURES**

- \* WIDE RANGE OF COLLECTOR CURRENT
- \* LENSED FOR HIGH SENSITIVITY
- \* LOW COST PLASTIC PACKAGE

### PACKAGE DIMENSIONS



#### NOTES:

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

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# LITEON LITE-ON TECHNOLOGY CORPORATION

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### ABSOLUTE MAXIMUM RATINGS AT $T_A=25^{\circ}C$

PARAMETER	MAXIMUM RATING	UNIT			
Power Dissipation	100	mW			
Collector-Emitter Voltage	30	V			
Emitter-Collector 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				

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## LITEON TECHNOLOGY CORPORATION

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## ELECTRICAL / OPTICAL CHARACTERISTICS AT $T_A$ =25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION	BIN NO.
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	30			V	$I_{C} = 1mA$ $Ee = 0mW/cm^{2}$	
Emitter-Collector Breakdown Voltage	V <sub>(BR)ECO</sub>	5			V	$I_E = 100 \mu \text{ A}$ $Ee = 0\text{mW/cm}^2$	
Collector Emitter Saturation Voltage	V <sub>CE(SAT)</sub>			0.4	V	$I_C = 0.5 mA$ $Ee = 1 mW/cm^2$	
Rise Time	Tr		10		μs	$V_{CC} = 5V$ $I_{C} = 1mA$ $R_{L} = 1K\Omega$	
Fall Time	Tf		10		μs		
Collector Dark Current	$I_{CEO}$			100	nA	$V_{CE} = 10V$ $Ee = 0mW/cm^2$	
On State Collector Current	I <sub>C(ON)</sub>	0.8		2.4	mA	$V_{CE} = 5V$ $Ee = 1mW/cm^{2}$ $\lambda = 940nm$	BIN C
		1.6		4.8			BIN D
		3.2		9.6			BIN E
		6.4					BIN F

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## LITEON LITE-ON TECHNOLOGY CORPORATION

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### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

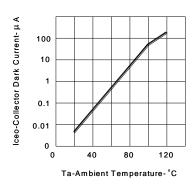


FIG.1 COLLECTOR DARK CURRENT VS AMBIENT TEMPERATURE

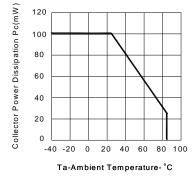


FIG.2 COLLECTOR POWER DISSIPATION VS AMBIENT TEMPERATURE

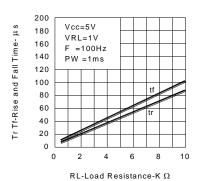


FIG.3 RISE AND FALL TIME VS LOAD RESISTANCE

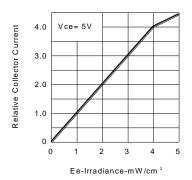


FIG.4 RELATIVE COLLECTOR CURRENT VS IRRADIANCE

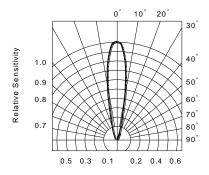


FIG.5 SENSITIVITY DIAGRAM

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