



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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# Photointerrupter Product Data Sheet

LTH-1550-01

Spec No.: DS-55-94-0001

Effective Date: 04/07/2000

Revision: A

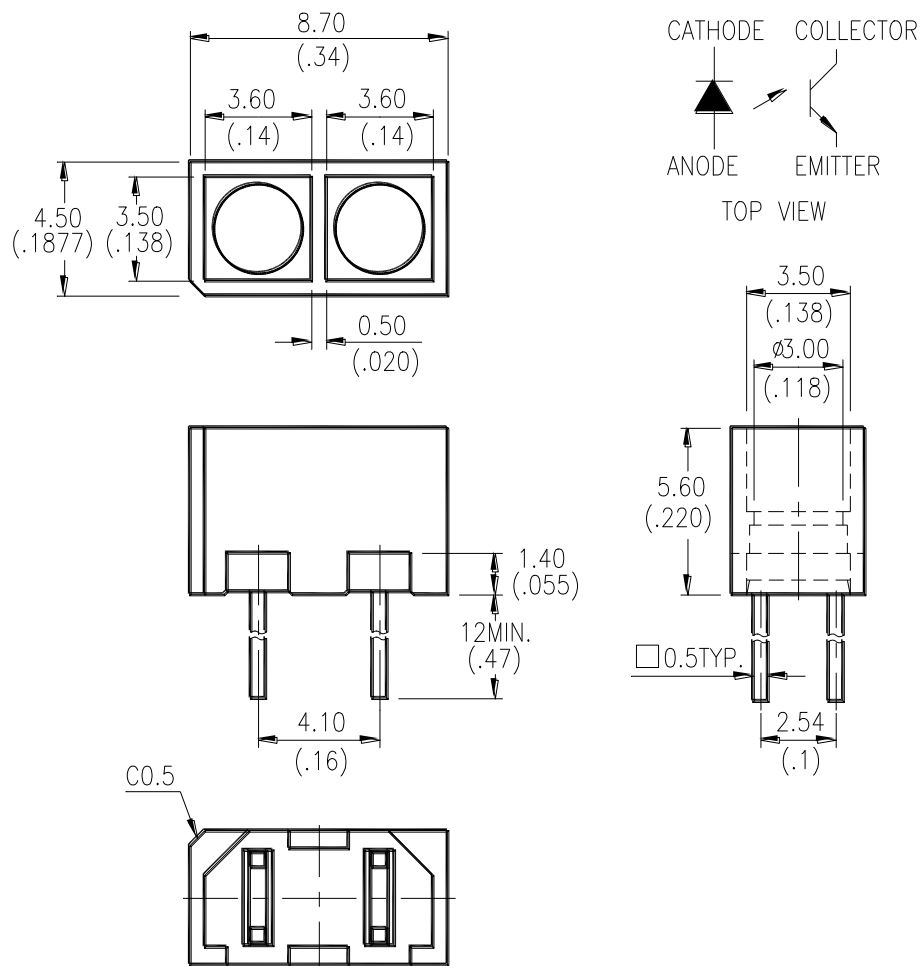
**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

**FEATURES**

- \* NON-CONTACT SWITCHING.
- \* FOR DIRECT PC BOARD OR DUAL-IN-LINE SOCKET MOUNTING.
- \* FAST SWITCHING SPEED.

**PACKAGE DIMENSIONS****NOTES:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}(.010\text{'})$  unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.

**ABSOLUTE MAXIMUM RATINGS AT TA=25°C**

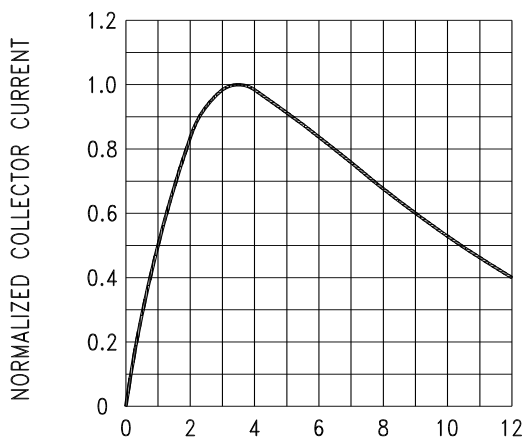
PARAMETER	SYMBOL	MAXIMUM RATING	UNIT
<b>INPUT DIODE</b>			
Power Dissipation	$P_D$	90	mW
Peak Forward Current ( 300 pps , 10 $\mu$ S pulse )	$I_{CP}$	1	A
Continuous Forward Current	$I_F$	60	mA
Reverse Voltage	$V_R$	5	V
<b>OUTPUT PHOTOTRANSISTOR</b>			
Power Dissipation	$P_C$	100	mW
Collector-Emitter Voltage	$V_{CEO}$	30	V
Emitter-Collector Voltage	$V_{ECO}$	5	V
Collector Current	$I_C$	20	mA
Operating Temperature Range	$T_{opr}$	-25°C to + 85°C	
Storage Temperature Range	$T_{stg}$	-40°C to + 100°C	
Lead Soldering Temperature [ 1.6mm (.063") Form Case ]	$T_S$	260°C for 5 Seconds	

## ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION	Bin No.
<b>INPUT DIODE</b>							
Forward Voltage	$V_F$		1.2	1.6	V	$I_F = 20\text{mA}$	
Reverse Current	$I_R$			100	$\mu\text{A}$	$V_R=5\text{V}$	
<b>OUTPUT PHOTOTRANSISTOR</b>							
Collector-Emitter Dark Current	$I_{CEO}$			100	nA	$V_{CE}=10\text{V}$	
<b>COUPLER</b>							
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$			0.4	V	$I_C=0.2\text{mA}$ $I_F=20\text{mA}$	
On State Collector Current	$I_{C(ON)}$	200		400	uA	$V_{CE}=5\text{V}$ $I_F=20\text{mA}$ $d=3.5\text{mm}$ <b>(90% Reflective White Paper )</b>	BIN A
		300		600			BIN B
		500		1000			BIN C
		800		1600			BIN D

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



d-DISTANCE TO REFLECTIVE SURFACE-millimeter  
Fig.1 NORMALIZED COLLECTOR CURRENT VS. OBJECT DISTANCE

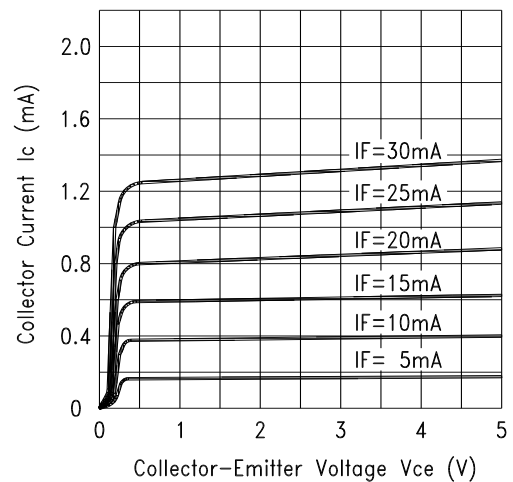


Fig.2 COLLECTOR CURRENT VS. COLLECTOR VOLTAGE

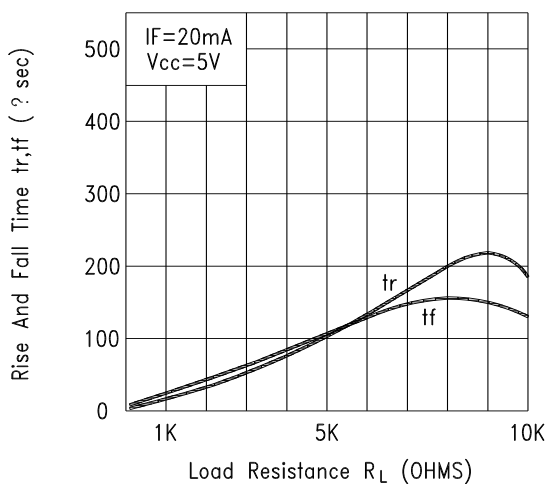


Fig.3 RISE AND FALL TIME VS. LOAD RESISTANCE

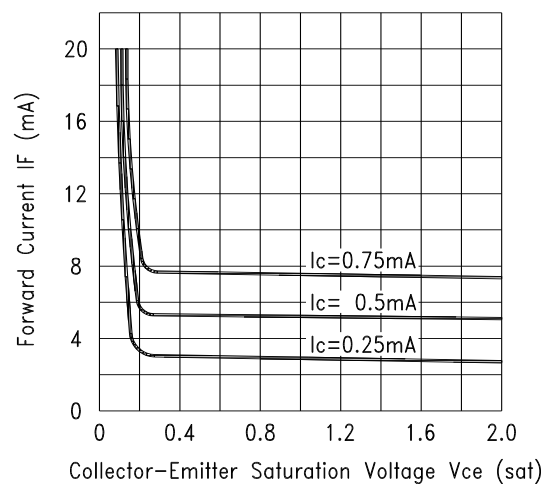


Fig.4 FORWARD CURRENT VS. Collector-Emitter Saturation Voltage