



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-306-08

Spec No.: DS-55-95-0005

Effective Date: 08/29/2001

Revision: -

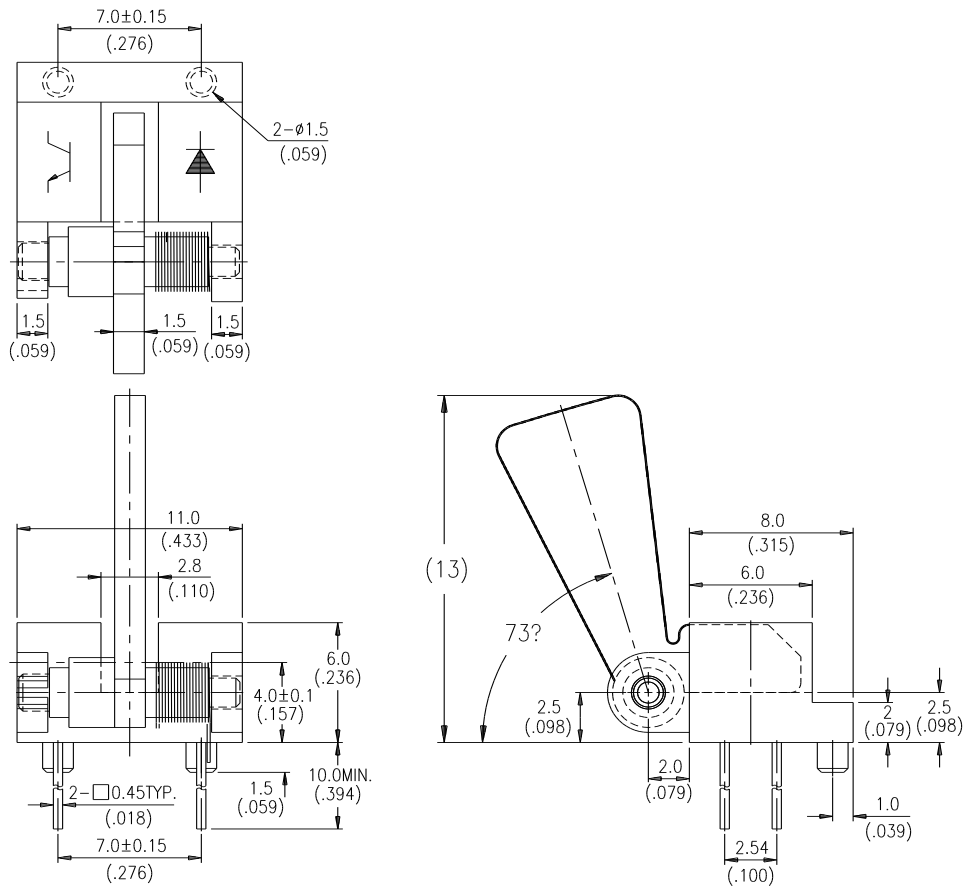
**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

**FEATURES**

- \* MECHANICAL SWITCH REPLACEMENT.
- \* FOR DIRECT PC BOARD OR DUAL-IN-LINE SOCKET MOUNTING.
- \* CUSTOMIZED LEVER ARM CAN BE DESIGNED FOR SPECIFIC APPLICATION.

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

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25$ mm(.010") unless otherwise noted.
3. Specifications are subject to change without notice.



## ABSOLUTE MAXIMUM RATINGS AT T<sub>A</sub>=25°C

PARAMETER	MAXIMUM RATING	UNIT
IR Diode Continuous Forward Current	50	mA
IR Diode Reverse Voltage	5	V
Transistor Collector Current	20	mA
Transistor Power Dissipation	75	mW(Note 1)
IR Diode Peak Forward Current (Pulse Wide = 10 $\mu$ S, 300 pps)	1	A
Diode Power Dissipation	60	mW(Note 1)
Phototransistor Collector-Emitter Voltage	30	V
Phototransistor Emitter-Collector Voltage	5	V
Operating Temperature Range	-25°C to + 85°C	
Storage Temperature Range	-55°C to + 100°C	
Lead Soldering Temperature [ 1.6mm (.063") Form Case ]	260°C for 5 Seconds	

Note 1: Derate Linearly 1.33 mW/°C from 25°C



## ELECTRICAL OPTICAL CHARACTERISTICS AT T<sub>A</sub>=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
INPUT LED						
Forward Voltage	V <sub>F</sub>		1.2	1.6	V	I <sub>F</sub> = 20mA
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V
OUTPUT PHOTOTRANSISTOR						
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	30			V	I <sub>C</sub> =1mA
Emitter-Collector Breakdown Voltage	BV <sub>ECO</sub>	5			V	I <sub>E</sub> =100 μA
Collector-Emitter Dark Current	I <sub>CEO</sub>			100	nA	V <sub>CE</sub> =10V
COUPLER						
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>			0.4	V	I <sub>C</sub> =0.25mA I <sub>F</sub> =20mA
On State Collector Current	I <sub>C(ON)</sub>	0.5			mA	V <sub>CE</sub> =5V I <sub>F</sub> =20mA

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

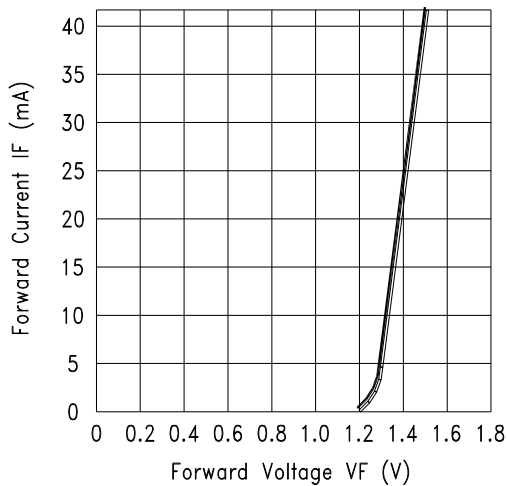


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

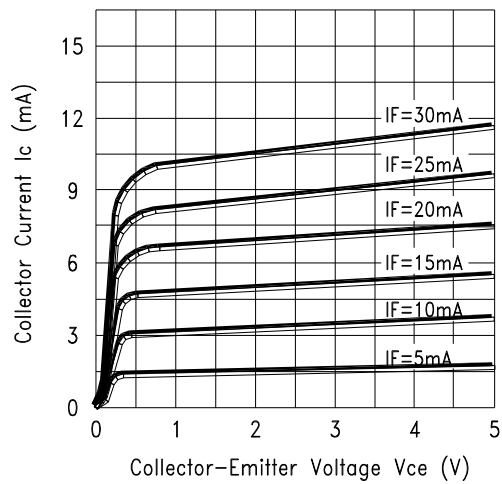


Fig.2 COLLECTOR CURRENT VS. COLLECTOR VOLTAGE

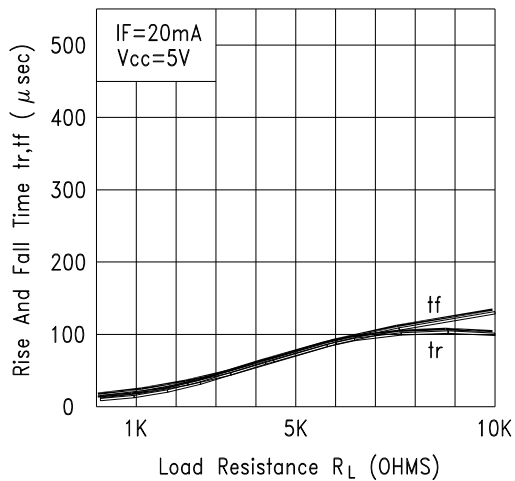


Fig.3 RISE AND FALL TIME VS. LOAD RESISTANCE

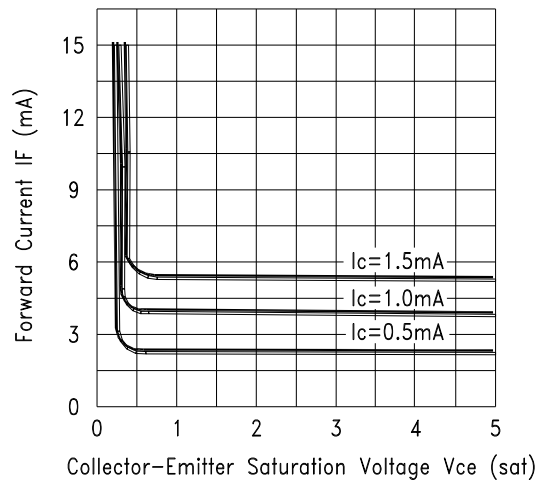


Fig.4 FORWARD CURRENT VS. Collector-Emitter Saturation Voltage