



Photointerrupter Product Data Sheet

LTH-306-08

Spec No.: DS-55-95-0005

Effective Date: 08/29/2001

Revision: -

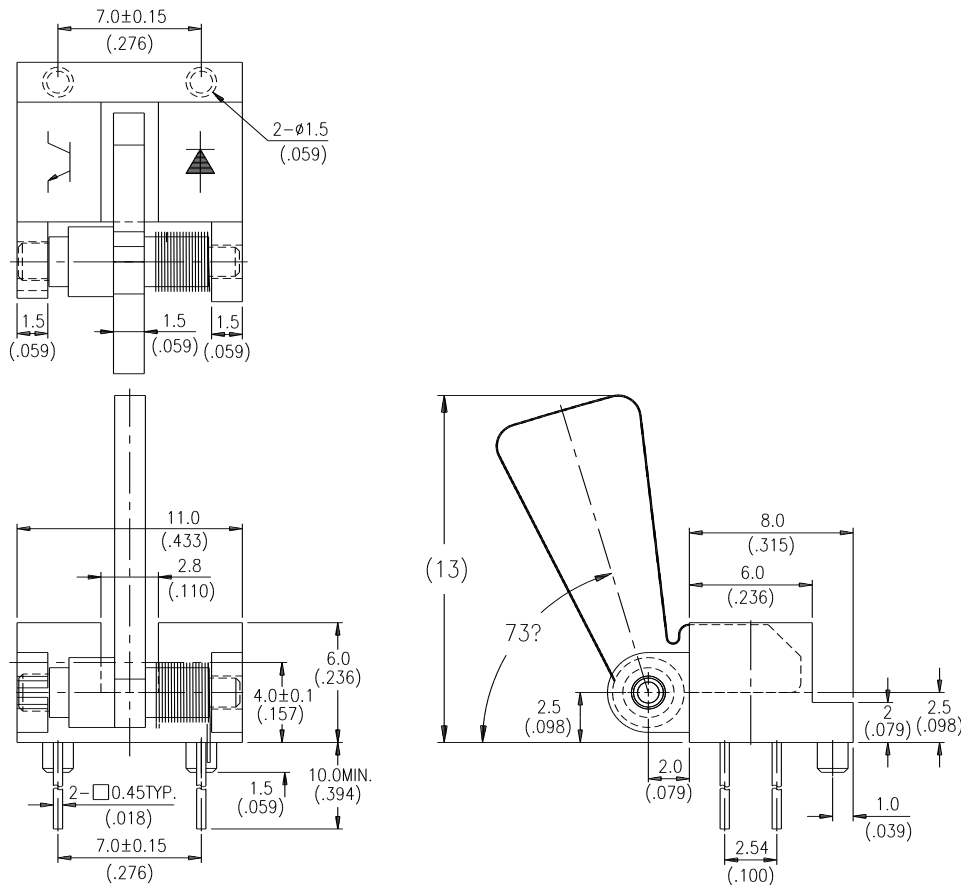
LITE-ON DCC

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 ± 0.25 mm(.010") unless otherwise noted.
3. Specifications are subject to change without notice.



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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
INPUT LED						
Forward Voltage	V_F		1.2	1.6	V	$I_F = 20\text{mA}$
Reverse Current	I_R			100	μA	$V_R=5\text{V}$
OUTPUT PHOTOTRANSISTOR						
Collector-Emitter Breakdown Voltage	BV_{CEO}	30			V	$I_C=1\text{mA}$
Emitter-Collector Breakdown Voltage	BV_{ECO}	5			V	$I_E=100\mu\text{A}$
Collector-Emitter Dark Current	I_{CEO}			100	nA	$V_{CE}=10\text{V}$
COUPLER						
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$			0.4	V	$I_C=0.25\text{mA}$ $I_F=20\text{mA}$
On State Collector Current	$I_{c(ON)}$	0.5			mA	$V_{CE}=5\text{V}$ $I_F=20\text{mA}$

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

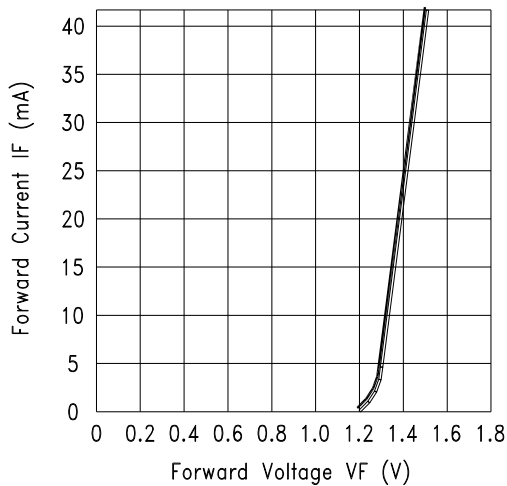


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

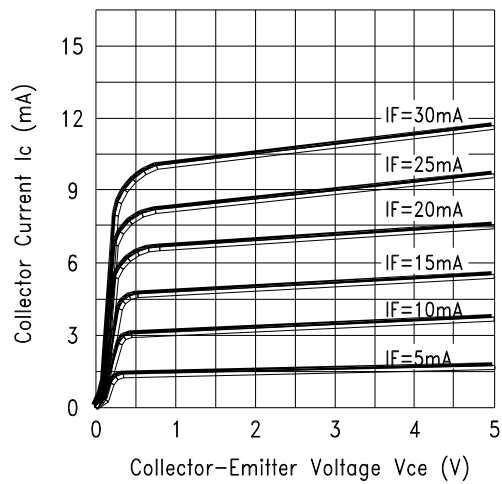


Fig.2 COLLECTOR CURRENT VS. COLLECTOR VOLTAGE

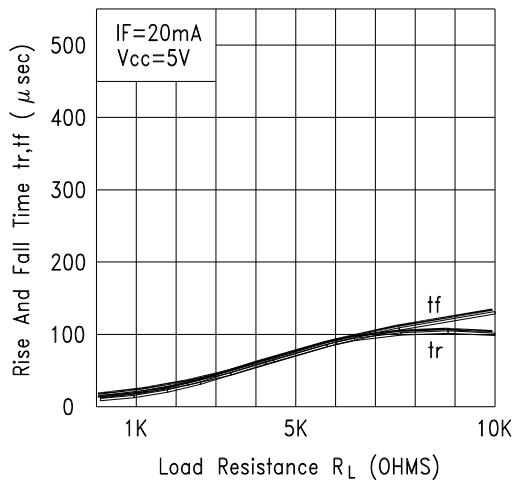


Fig.3 RISE AND FALL TIME VS. LOAD RESISTANCE

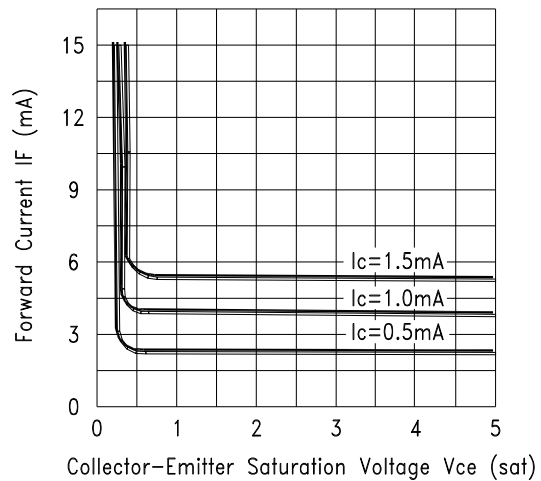


Fig.4 FORWARD CURRENT VS. Collector-Emitter Saturation Voltage