



Photointerrupter Product Data Sheet

LTH-1650-01

Spec No.: DS-55-95-0009

Effective Date: 01/06/2001

Revision: B

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

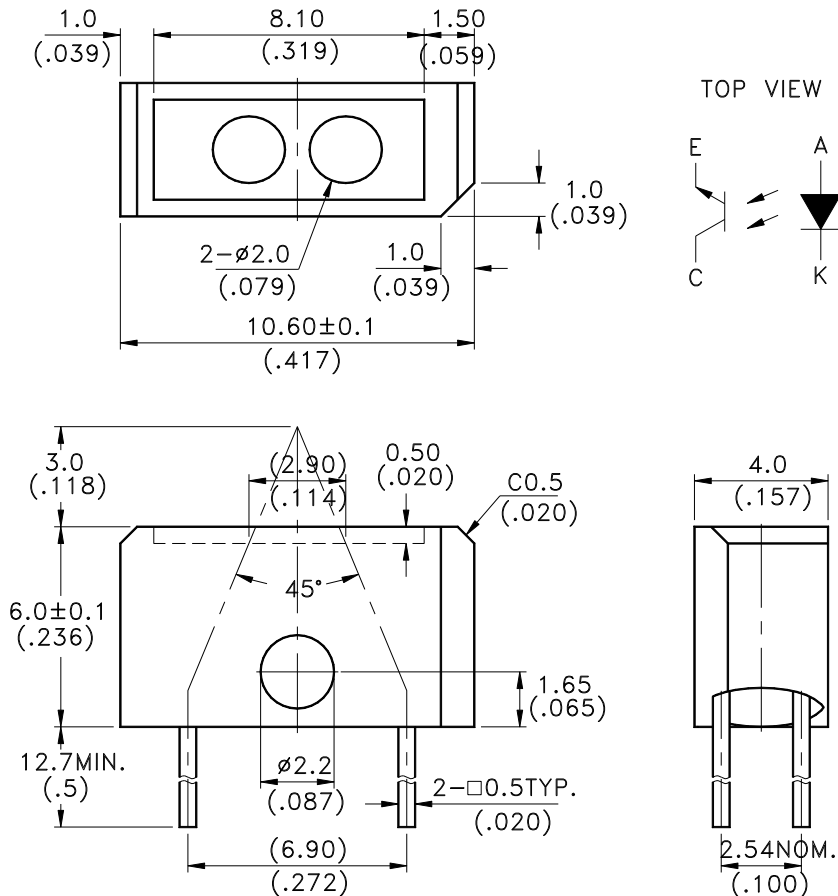
FEATURES

- * FOCAL DISTANCE: 3 mm.
- * INFRARED RAY CUT-OFF TYPE.

APPLICATION

- * PRINTER
- * FAX
- * OPTOELECTRONIC SWITCHES

PACKAGE DIMENSIONS



NOTES:

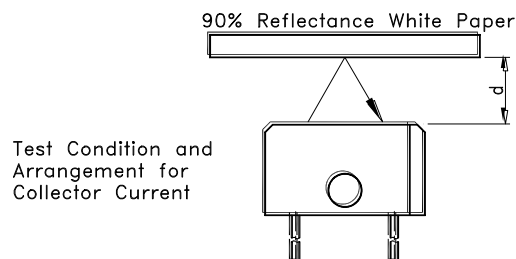
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm(.010") unless otherwise noted.

ABSOLUTE MAXIMUM RATINGS AT TA=25°C

PARAMETER	SYMBOL	MAXIMUM RATING	UNIT
INPUT LED			
Power Dissipation	P _D	75	mW
Peak Forward Current (300 pps , 10 μ S pulse)	I _{CP}	1	A
Continuous Forward Current	I _F	60	mA
Reverse Voltage	V _R	5	V
OUTPUT PHOTOTRANSISTOR			
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 $T_A=25^\circ\text{C}$

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 Dark Current	I_{CEO}			100	nA	$V_{CE} = 10\text{V}$
COUPLER						
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$			0.4	V	$I_C = 0.05\text{mA}$ $I_F = 20\text{mA}$
On State Collector Current	$I_{C(ON)}$	100		300	μA	$V_{CE} = 5\text{V}$ $I_F = 20\text{mA}$ $d = 3.0\text{mm}$
		260		650		BIN B
		400		1200		BIN C
Response Time	Rise Time	T_R		3	μS	$V_{CE} = 5\text{V}$, $I_C = 2\text{mA}$ $R_L = 100\ \Omega$
	Fall Time	T_F		4		



TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

Fig.1 Power Dissipation vs. Ambient Temperature

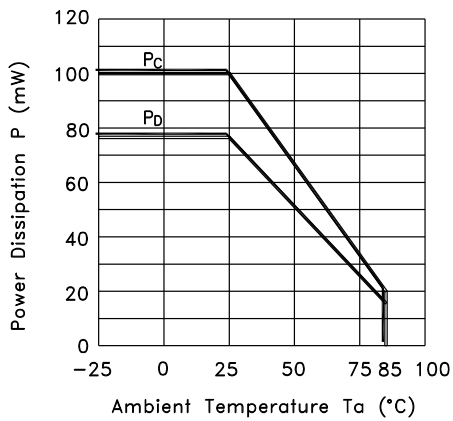


Fig.2 Forward Current vs. Forward Voltage

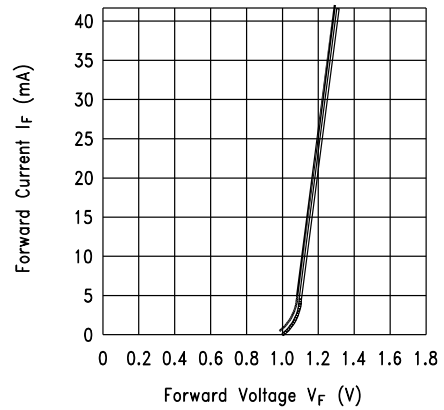


Fig.3 Collector Current vs. Collector-emitter Voltage

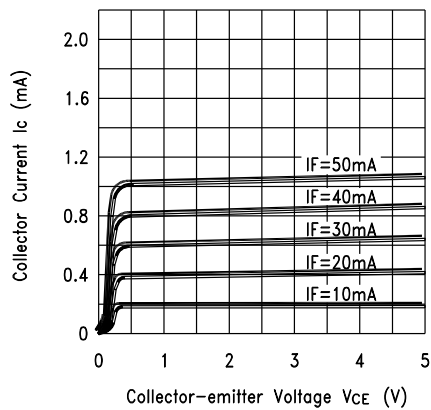
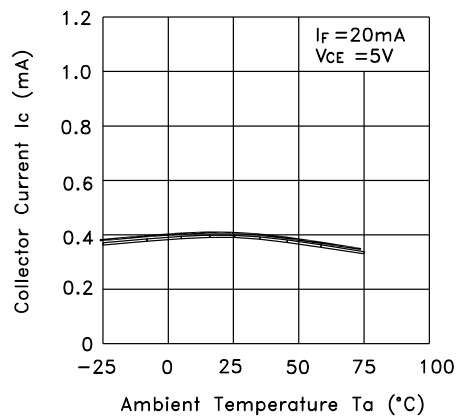


Fig.4 Collector Current vs. Ambient Temperature



TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

Fig.5 Collector-emitter Saturation vs. Voltage Ambient Temperature

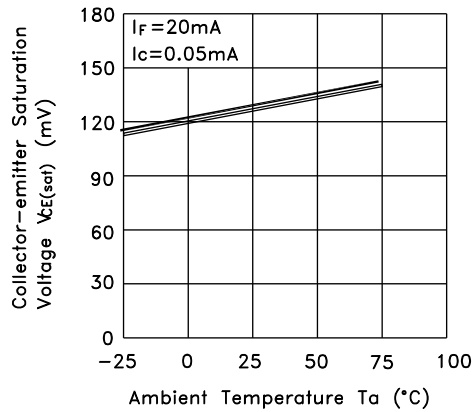


Fig.6 Relative Collector Current vs. Object Distance

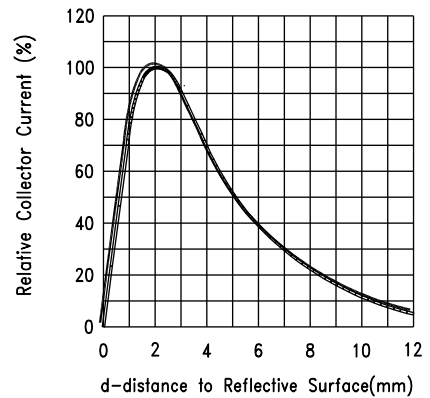
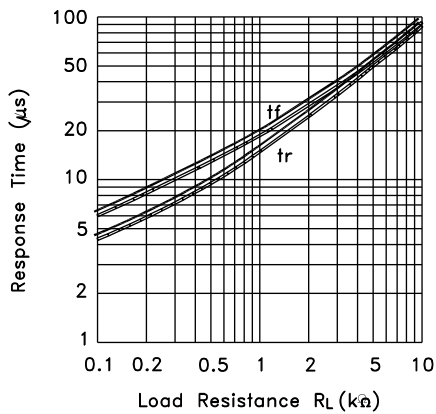
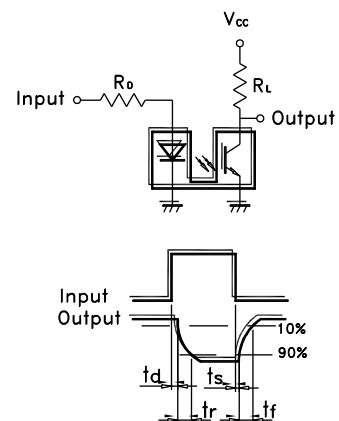


Fig.7 Response Time vs. Load Resistance



Test Circuit for Response Time



Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- [View LTH-1650-01 on WIN SOURCE](#)
- [Lite-On Inc. Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management