



Photointerrupter Product Data Sheet LTH-301A

Spec No.: DS-55-92-0001

Effective Date: 03/05/2002

Revision: A

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LITE-ON Technology Corp. / Optoelectronics

No.90,Chien 1 Road, Chung Ho, New Taipei City 23585, Taiwan, R.O.C.

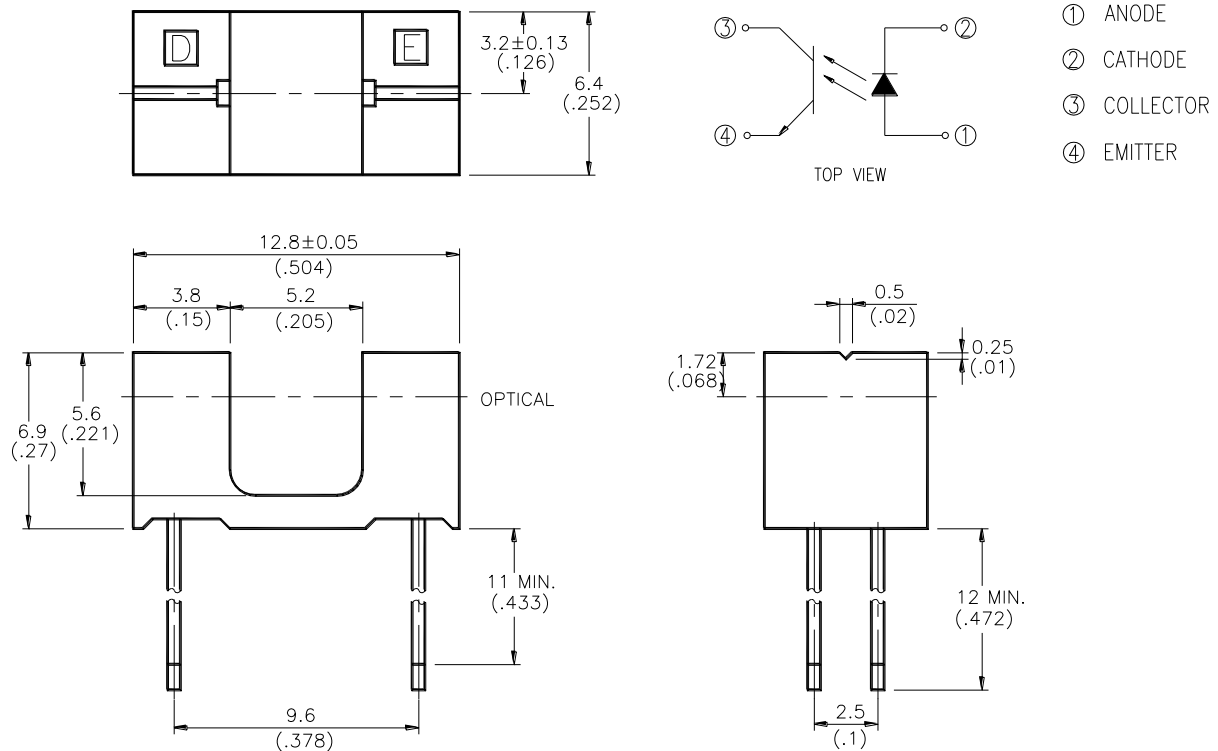
Tel: 886-2-2222-6181 Fax: 886-2-2221-1948 / 886-2-2221-0660

<http://www.liteon.com/opto>

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 $\pm 0.25\text{mm}(.010")$ unless otherwise noted.
3. Specifications are subject to change without notice.

ABSOLUTE MAXIMUM RATINGS AT T_A=25°C

PARAMETER	MAXIMUM RATING	UNIT
INPUT LED		
Power Dissipation	75	mW
Peak Forward Current (300 pps , 10 μ S pulse)	1	A
Continuous Forward Current	50	mA
Reverse Voltage	5	V
OUTPUT PHOTOTRANSISTOR		
Power Dissipation	100	mW
Collector-Emitter Voltage	30	V
Emitter-Collector Voltage	5	V
Collector Current	20	mA
Operating Temperature Range	-25°C to + 85°C	
Storage Temperature Range	-40°C to + 100°C	
Lead Soldering Temperature [1.6mm (.063") Form Case]	260°C for 5 Seconds	

ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
INPUT LED						
Forward Voltage	V _F		1.2	1.6	V	I _F = 20mA
Reverse Current	I _R			100	μA	V _R =5V
OUTPUT PHOTOTRANSISTOR						
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	30			V	I _C =1mA
Emitter-Collector Breakdown Voltage	V _{(BR)ECO}	5			V	I _E =100 μA
Collector-Emitter Dark Current	I _{CEO}			100	nA	V _{CE} =10V
COUPLER						
Collector-Emitter Saturation Voltage	V _{CE(SAT)}			0.4	V	I _C =0.25mA I _F =20mA
On State Collector Current	I _{c(ON)}	0.5			mA	V _{CE} =5V I _F =20mA

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

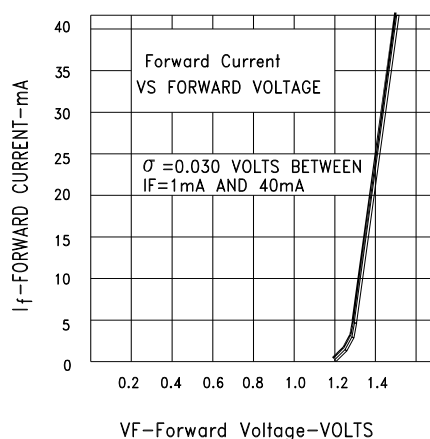


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

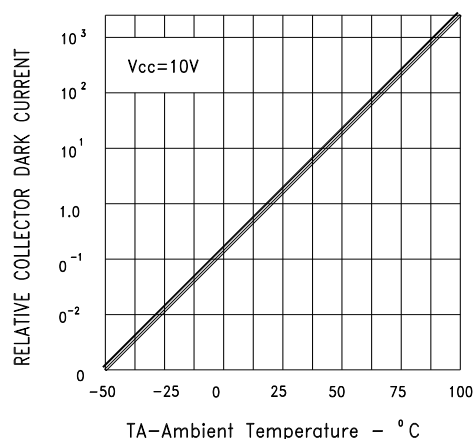


Fig.2 RELATIVE RADIANT INTENSITY VS. AMBIENT TEMPERATURE

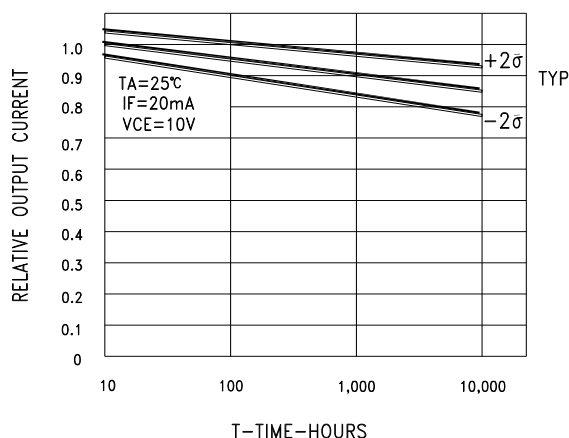


Fig.3 RELATIVE OUTPUT CURRENT VS TIME

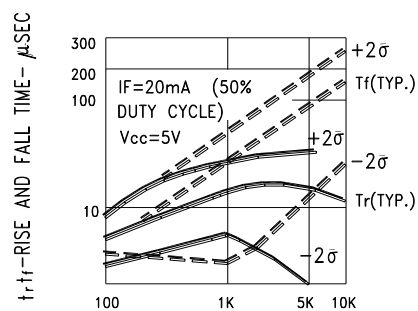


FIG.D RL.-LOAD RESISTANCE-OHMS

Fig.4 RISE AND FALL TIME VS LOAD RESISTANCE