



Photointerrupter Product Data Sheet

LTH-306-73

Spec No.: DS55-2013-0003

Effective Date: 10/31/2013

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

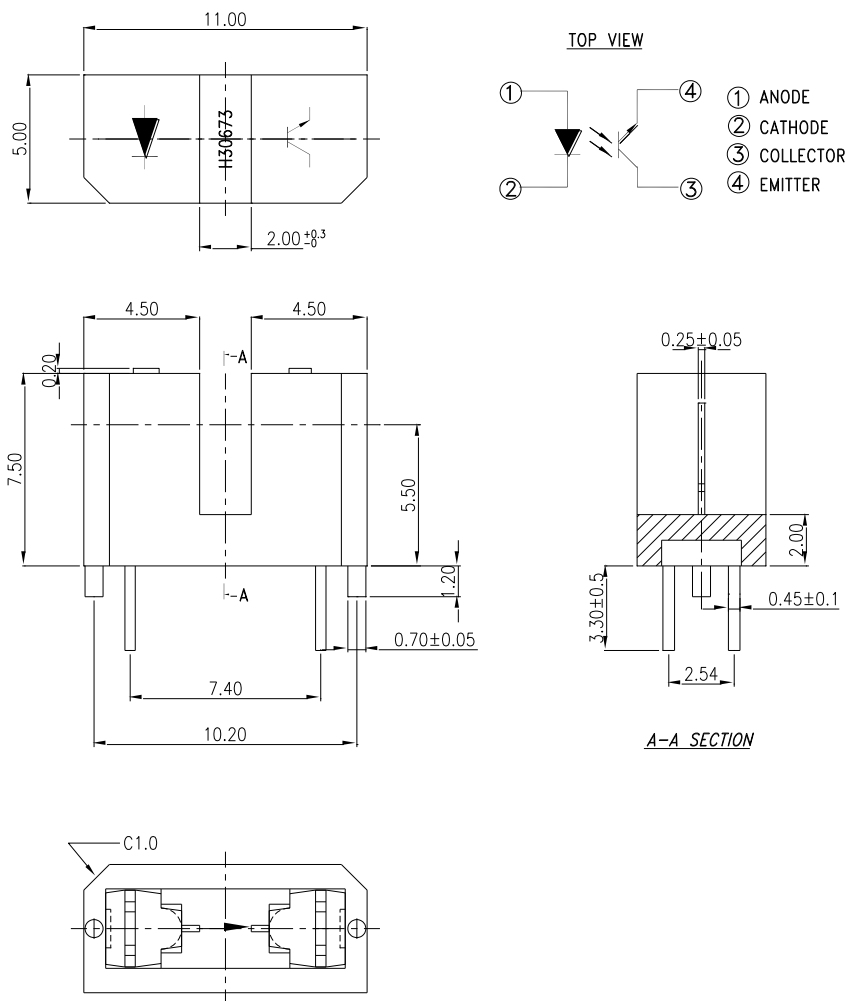
FEATURES

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



Rev.- September 2 2013

PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters.
2. Tolerance is ± 0.25 mm unless otherwise noted.
3. Specification are subject to change without notice.



ABSOLUTE MAXIMUM RATINGS AT TA=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") From Case]	260°C for 5 Seconds	

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



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 =0.2mA I _F =20mA
On State Collector Current	I _{c(ON)}	0.6			mA	V _{CE} =5V I _F =20mA
Rise Time	T _r		3	15		I _C =2mA R _L =100Ω V _{CE} =5V
Fall Time	T _f		4	20		

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

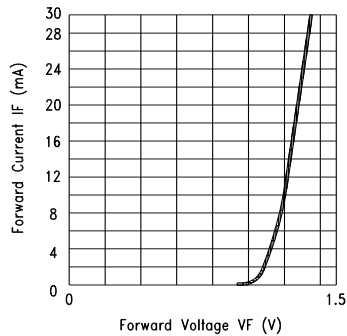


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

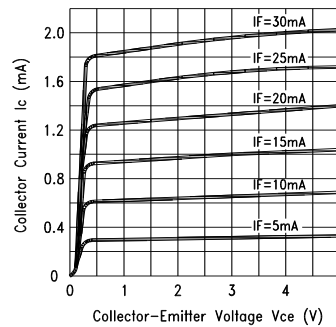


Fig.2 COLLECTOR CURRENT VS. COLLECTOR VOLTAGE

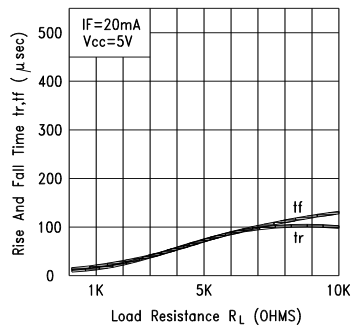


Fig.3 RISE AND FALL TIME VS. LOAD RESISTANCE

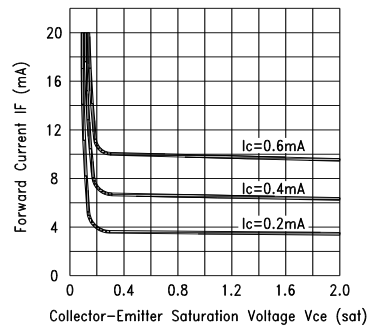


Fig.4 FORWARD CURRENT VS. Collector-Emitter Saturation Voltage

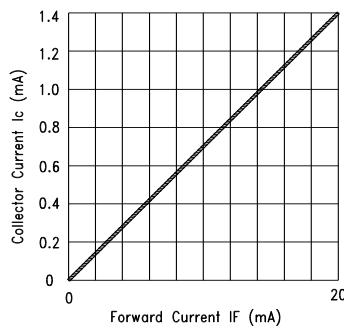


Fig.5 COLLECTOR CURRENT V.S FORWARD CURRENT