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.

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LITEON®
OPTOELECTRONICS

Photointerrupter

Product Data Sheet

LTH-306-64

Spec No.: DS55-2008-0010

Effective Date: 05/10/2008

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LITE-ON Technology Corp. / Optoelectronics
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LITE-ON TECHNOLOGY CORPORATION

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Origin Date : 04/29/2008	Originator : Shiqincui	Page : 0 of 5

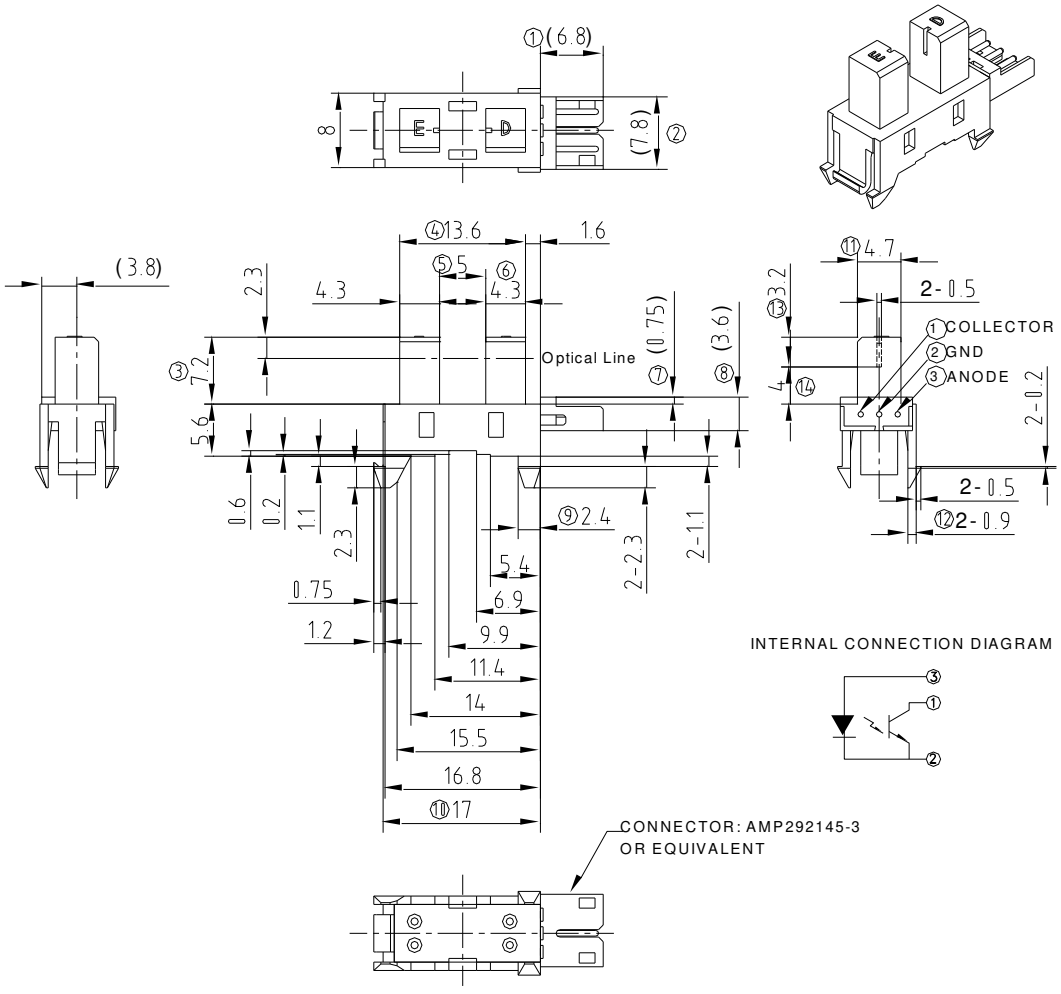
Rev.	Date	ECN OR QCN	Description of Change	Checker
-	04/29/2008		NEW SPEC	Shiqincui

Part No. : LTH-306-64 DATA SHEET

FEATURES

* SNAP MOUNTING.
* MECHANICAL SWITCH REPLACEMENT.
* ROHS COMPLIANT

PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.15mm(.006") unless otherwise noted.

ABSOLUTE MAXIMUM RATINGS AT T_A=25℃

PARAMETER	SYMBOL	MAXIMUM RATING	UNIT
INPUT LED			
Power Dissipation	P_D	75	mW
Peak Forward Current (300 pps , 10 μS pulse)	I_{CP}	1	A
Continuous Forward Current	I_F	50	mA
Reverse Voltage	V_R	6	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℃ to + 85℃	
Storage Temperature Range	T_{stg}	-55℃ to + 100℃	

ELECTRICAL OPTICAL CHARACTERISTICS AT T_A=25℃

PARAMETER		SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
INPUT LED							
Forward Voltage		V_F		1.2	1.4	V	I_F = 20mA
Forward Voltage		V_F		0.8	1	V	I_F = 1uA
Reverse Current		I_R			10	μA	V_R=3V
OUTPUT PHOTOTRANSISTOR							
Collector-Emitter Dark Current		I_{CEO}		1	100	nA	V_{CE}=20V
Collector-Emitter Voltage		Bvceo	30			V	Ice=1mA
Emitter-Collector Voltage		Bveco	5			V	Iec=100uA
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		15	mA	V_{CE}=5V I_F=20mA
Response Time	Rise Time	T_R		3	15	μS	V_{CE}=2V, I_C=2mA R_L=100 Ω
	Fall Time	T_F		4	20		

Bin Match table vs. Icon value(mA) (For Reference)

LTE-306 / LTR-306	BinC	BinD	BinE	BinF
BinD	✗	✓	✓	✓
BinE	✓	✓	✓	✓
BinF	✓	✓	✓	✓
BinG	✓	✓	✓	✓
BinH	✓	✓	✓	✓

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25℃ Ambient Temperature Unless Otherwise Noted)

Fig.1 Power Dissipation vs. Ambient Temperature

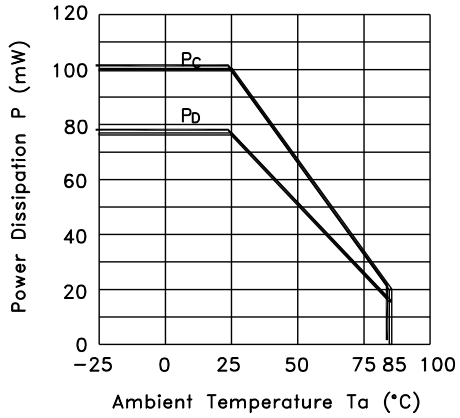


Fig.2 Forward Current vs. Forward Voltage

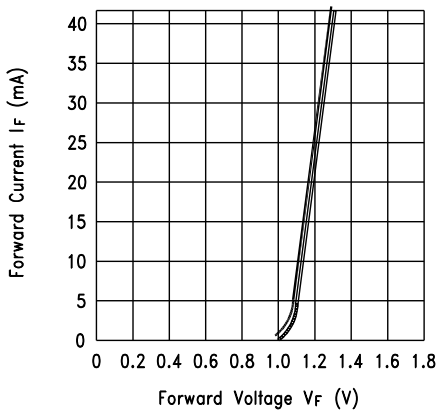


Fig.3 Collector Current vs. Forward Voltage

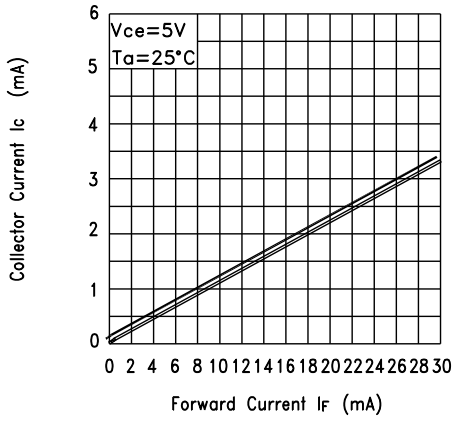
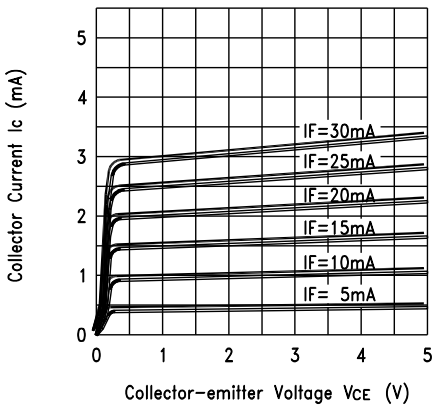


Fig.4 Collector Current vs. Collector-emitter Voltage



TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25℃ Ambient Temperature Unless Otherwise Noted)

Fig.5 Collector Current vs. Ambient Temperature

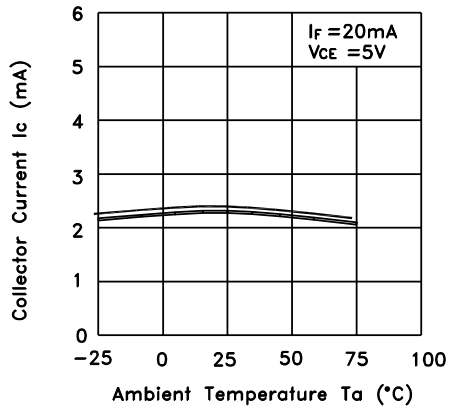


Fig.6 Collector−emitter Saturation Voltage vs. Ambient Temper

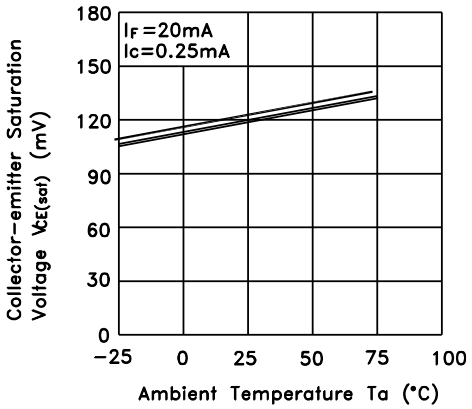
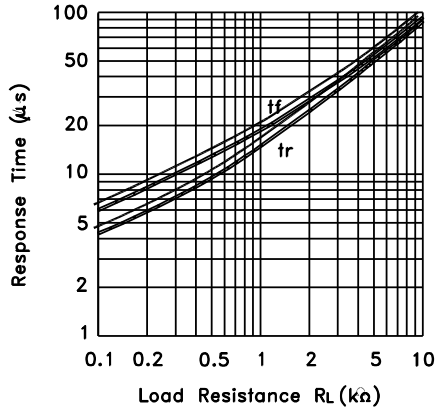


Fig.7 Response Time vs. Load Resistance



Test Circuit for Response Time