



Photointerrupter Product Data Sheet LTH-1550-06

Spec No.: DS-55-99-0008

Effective Date: 06/15/2000

Revision: C

LITE-ON DCC

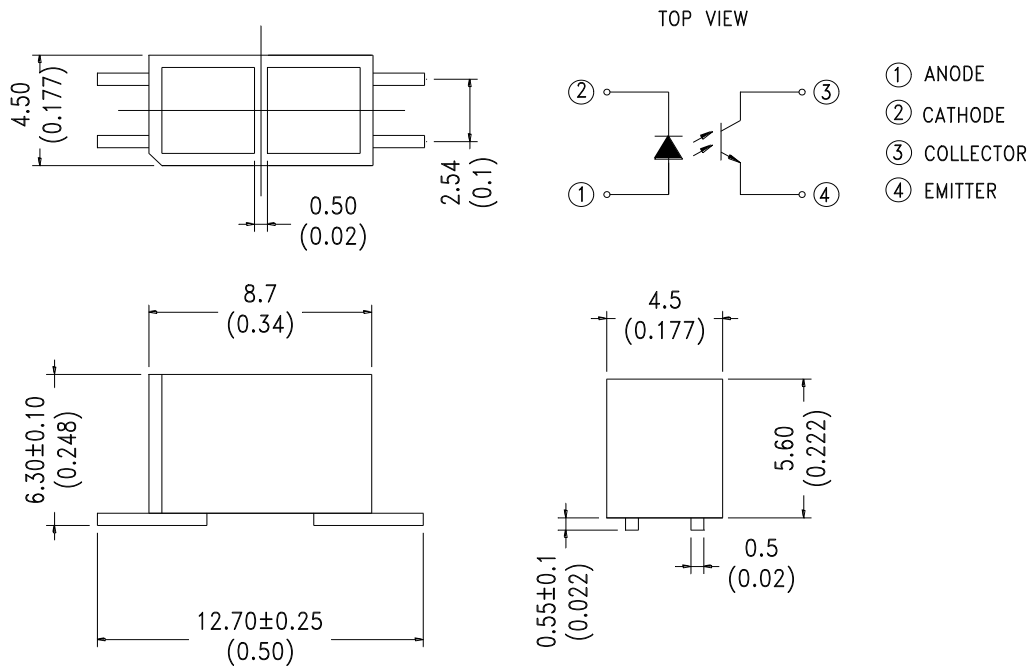
RELEASE

BNS-OD-FC001/A4

FEATURES

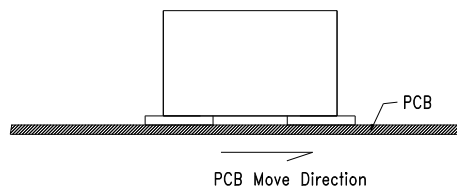
- * NON-CONTACT SWITCHING.
- * FAST SWITCHING SPEED.

PACKAGE DIMENSIONS

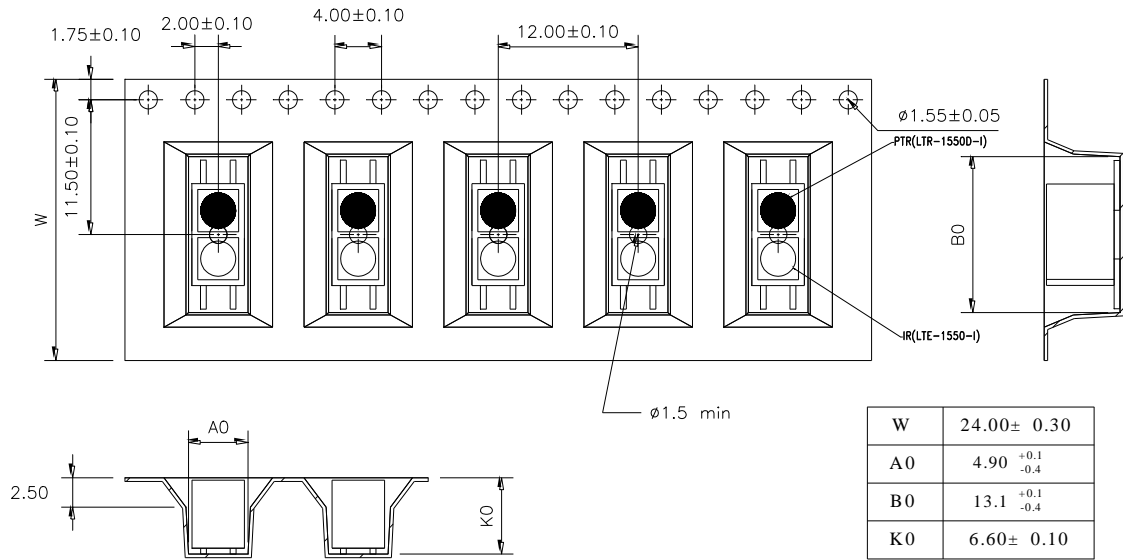


NOTES:

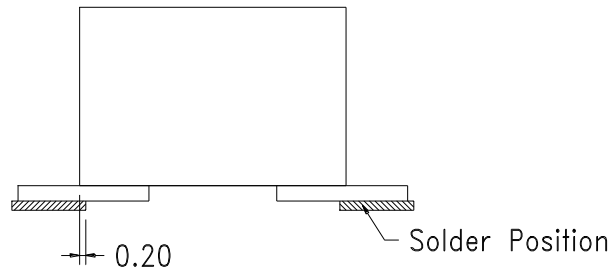
1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}(.010\text{'})$ unless otherwise noted.
3. Applicable to reflow soldering :
 Preheat : 160°C within 120 seconds
 Reflow : 220°C within 20 seconds
 (Peak : 220°C)
4. Device put on PCB position for reflow as follow :



TAPING DIMENSIONS



SOLDERING AREA :



ABSOLUTE MAXIMUM RATINGS AT TA=25°C

PARAMETER	SYMBOL	MAXIMUM RATING	UNIT
INPUT DIODE			
Power Dissipation	P_D	90	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°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
INPUT DIODE						
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 Dark Current	I _{CEO}			100	nA	V _{CE} =10V
COUPLER						
Collector-Emitter Saturation Voltage	V _{CE(SAT)}			0.4	V	I _C =0.5mA I _F =20mA
On State Collector Current	I _{C(ON)}	BIN A	750		1150	uA V _{CE} =5V I _F =20mA D=3.5 mm (90% Reflective White Paper)
		BIN B	1090		1430	
		BIN C	1370		1770	
Response Time	Rise Time	T _R		3	15	μS V _{CE} =5V, I _C =2mA R _L =100 Ω
	Fall Time	T _F		4	20	

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

Fig.1 Power Dissipation vs. Ambient Temperature

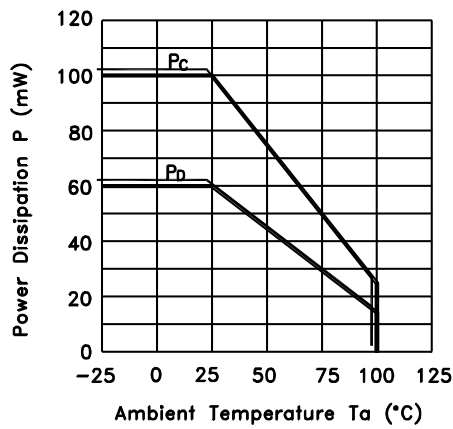


Fig.2 Forward Current vs. Forward Voltage

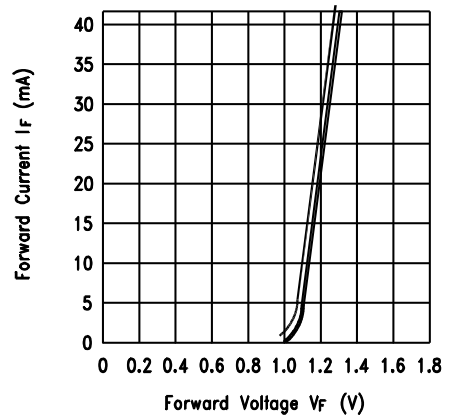


Fig.3 Collector Current vs. Forward Voltage

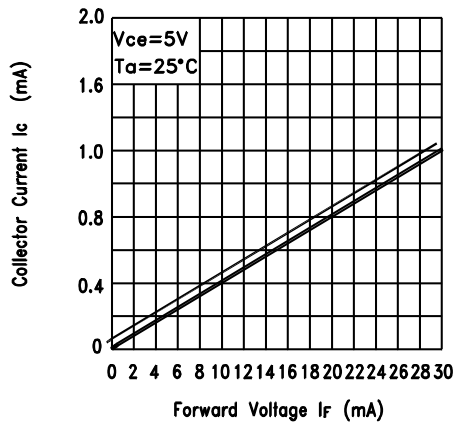
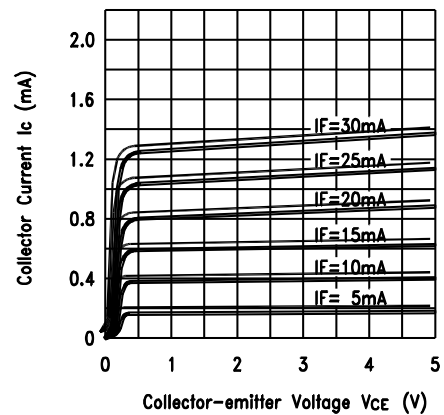


Fig.4 Collector Current vs. Collector-emitter Voltage



TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

Fig.5 Collector Current vs. Ambient Temperature

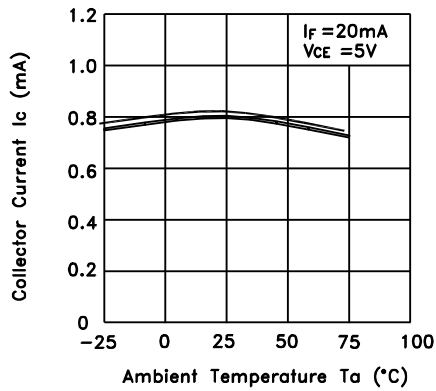


Fig.6 Collector-emitter Saturation Voltage vs. Ambient Temperature

