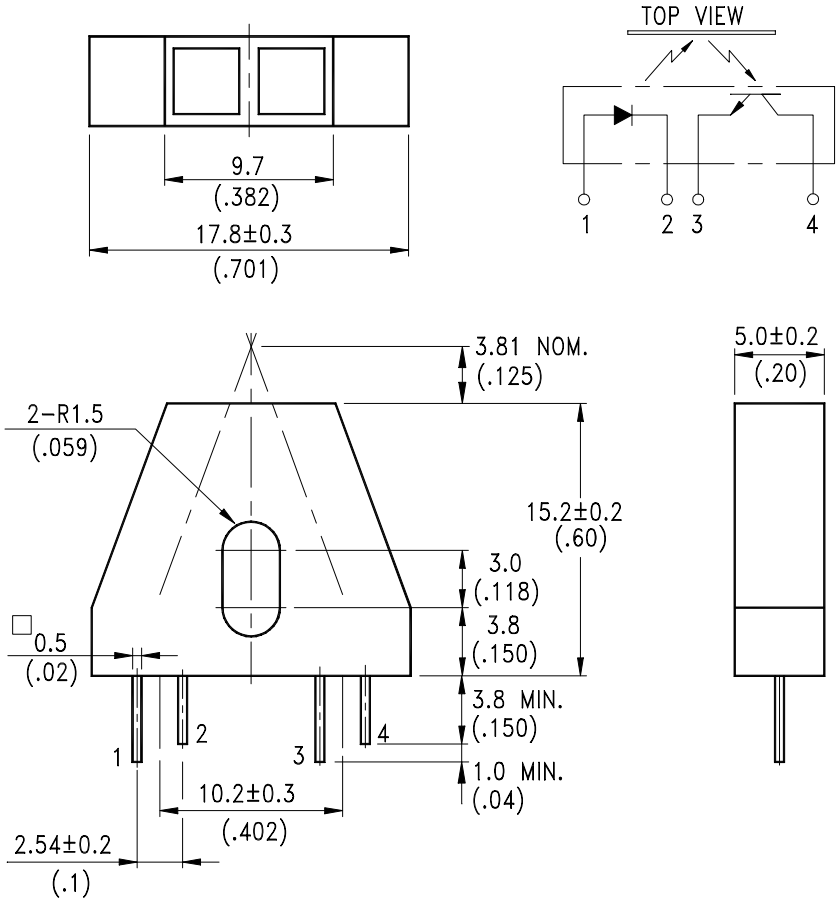
FEATURES

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

PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm(.010") unless otherwise noted.
3. Specification are subject to change without notice.

ABSOLUTE MAXIMUM RATINGS AT TA=25℃

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	100	mW (Note 1)
IR Diode Peak Power Current (Pulse Wide = 10 μS, 300 pps)	3	A
Diode Power Dissipation	75	mW (Note 1)
Phototransistor Collector-Emitter Voltage	30	V
Phototransistor Emitter-Collector Voltage	5	V
Operating Temperature Range	-35℃ to + 65℃	
Storage Temperature Range	-40℃ to + 100℃	
Lead Soldering Temperature [1.6mm(.063") From Case]	260℃ for 5 Seconds	

Note 1: Derate Linearly 1.33 mW /℃ from 25℃

ELECTRICAL OPTICAL CHARACTERISTICS AT T_A=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
INPUT LED						
Forward Voltage	VF		1.2	1.6	V	I_F = 20mA
Reverse Current	IR			100	μA	VR=5V
OUTPUT PHOTOTRANSISTOR						
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	30			V	IC=1mA
Emitter-Collector Breakdown Voltage	$V_{(BR)ECO}$	5			V	IE=0.1mA
Collector-Emitter Dark Current	ICEO			100	nA	VCE=10V
COUPLER						
Collector-Emitter Saturation Voltage	VCE(SAT)			0.4	V	IC=0.08mA IF=20mA
On State Collector Current (Note 1)	Ic(ON)	0.16			mA	VCE=5V IF=20mA

Note 1: Refiective surface is Eastman Kodak (or Equivalent) neutral white paper with 90% diffused refiectance placed 3.81 mm (0.15 inch) from read head.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25℃ Ambient Temperature Unless Otherwise Noted)

Fig.1 Power Dissipation vs. Ambient Temperature

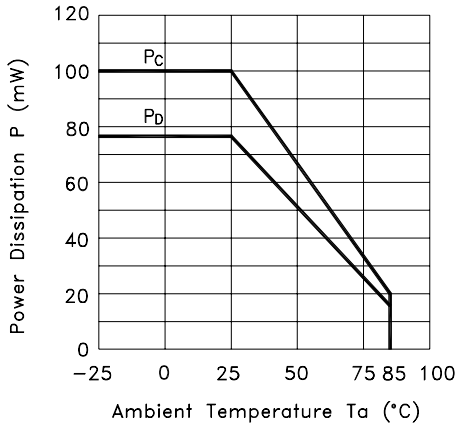


Fig.2 Forward Current vs. Forward Voltage

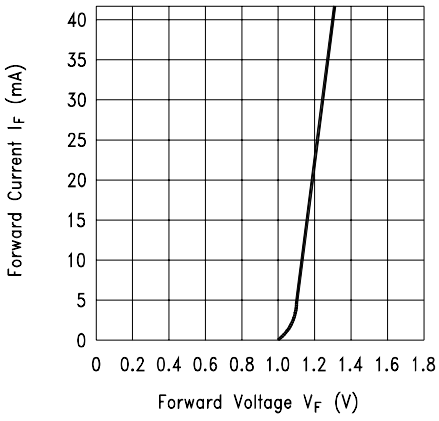


Fig.3 CIlector Current vs. Collector−emitter Voltage

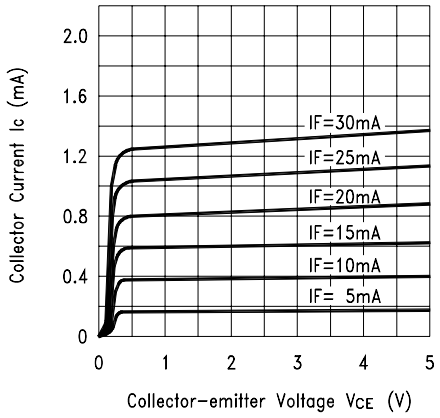
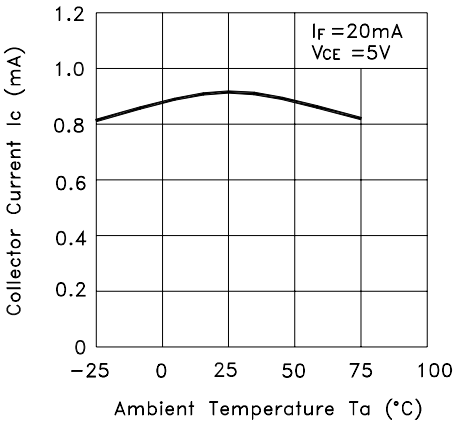


Fig.4 Collector Current vs. Ambient Temperature



TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25℃ Ambient Temperature Unless Otherwise Noted)

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

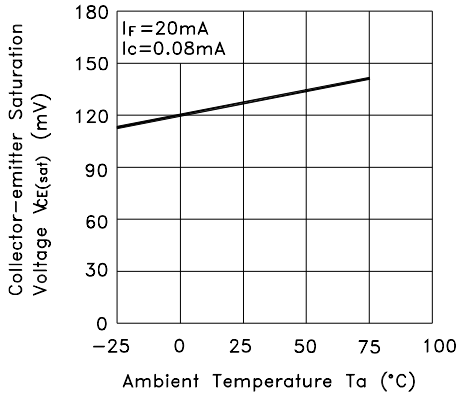


Fig.6 Relative Collector Current vs. Object Distance

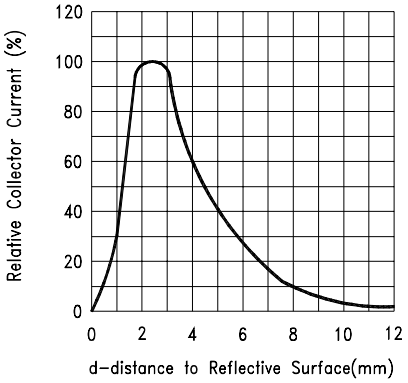
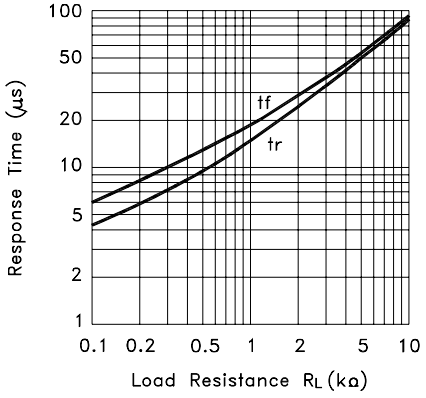


Fig.7 Response Time vs. Load Resistance



Test Circuit for Response Time