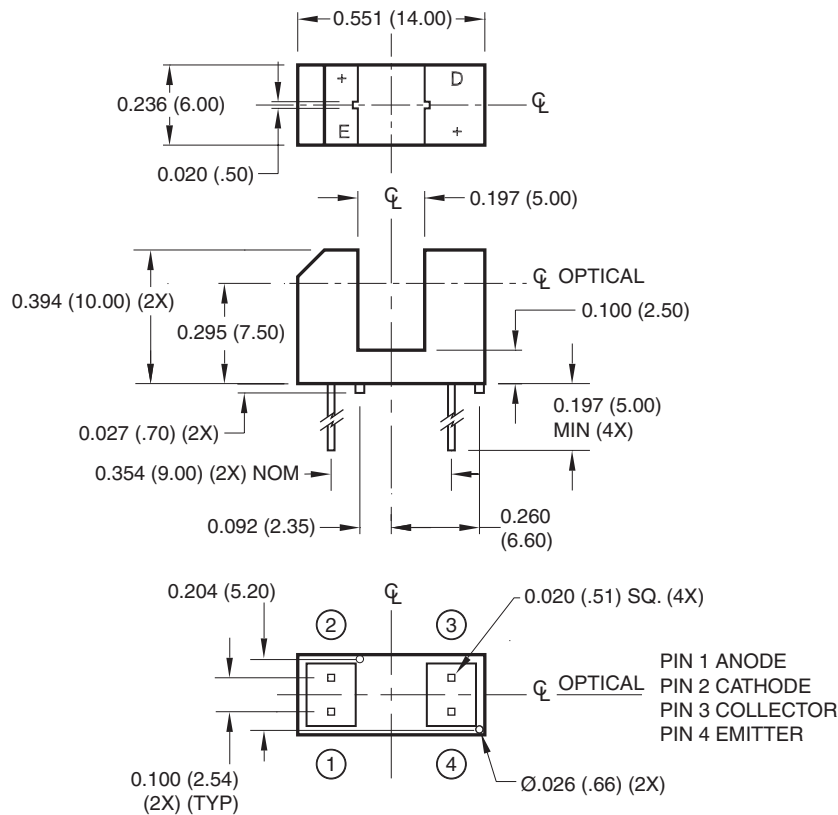
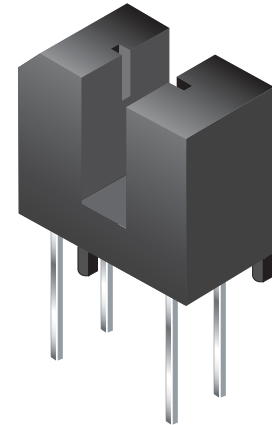


PACKAGE DIMENSIONS

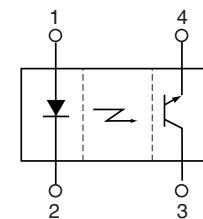


NOTES:

1. Dimensions for all drawings are in inches (millimeters).
2. Tolerance of $\pm .010$ (.25) on all non-nominal dimensions unless otherwise specified.



SCHEMATIC



FEATURES

- No contact switching
- 5mm wide slot
- 0.5 mm aperture width
- Opaque black plastic housing
- Locating knobs on housing base for accurate mounting
- Transistor Output

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Units
Operating Temperature	T_{OPR}	-55 to +100	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +100	$^\circ\text{C}$
Soldering Temperature (Iron) ^(2,3)	T_{SOL-I}	240 for 5 sec	$^\circ\text{C}$
Soldering Temperature (Flow) ^(2,3)	T_{SOL-F}	260 for 10 sec	$^\circ\text{C}$
EMITTER			
Continuous Forward Current	I_F	60	mA
Reverse Voltage	V_R	6	V
Power Dissipation ⁽¹⁾	P_D	150	mW
SENSOR			
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Collector Voltage	V_{ECO}	4.5	V
Collector Current	I_C	20	mA
Power Dissipation ⁽¹⁾	P_D	100	mW

NOTES:

1. Derate power dissipation linearly 1.67 mW/ $^\circ\text{C}$ above 25 $^\circ\text{C}$.
2. RMA flux is recommended.
3. Methanol or isopropyl alcohols are recommended as cleaning agents.
4. Soldering iron tip 1/16" (1.6mm) from housing.

ELECTRICAL / OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Units
EMITTER						
Forward Voltage	$I_F = 20\text{mA}$	V_F	—	1.2	1.5	V
Reverse Current	$V_R = 4\text{V}$	I_R	—	—	10	μA
Peak Emission Wavelength	$I_F = 20\text{mA}$	I_{PE}	—	940	—	nm
SENSOR						
Dark Current	$V_{CE} = 10\text{V}, I_F = 0\text{mA}$	I_D	—	—	200	nA
COUPLED						
Collector Current	$I_F = 20\text{mA}, V_{CE} = 10\text{V}$	$I_{C(ON)}$	0.5	—	14	mA
Collector Emitter Saturation Voltage	$I_F = 20\text{mA}, I_C = 0.1\text{mA}$	$V_{CE(SAT)}$	—	—	0.4	V
Rise Time	$V_{CC} = 5\text{V}, R_L = 100\Omega$	t_r	—	4	—	μs
Fall Time	$I_C = 5\text{mA}$	t_f	—	4	—	μs

TYPICAL PERFORMANCE CURVES

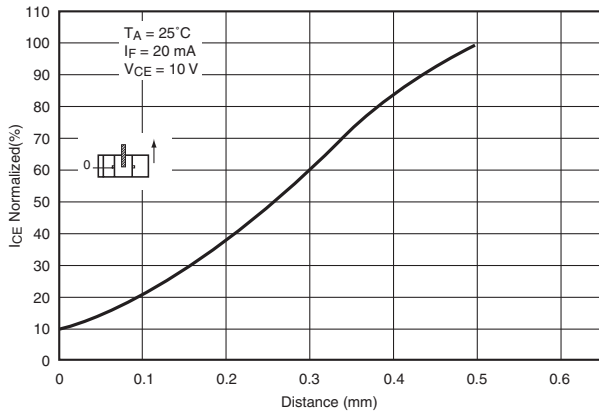


Fig. 1 Collector Current vs. Shield distance

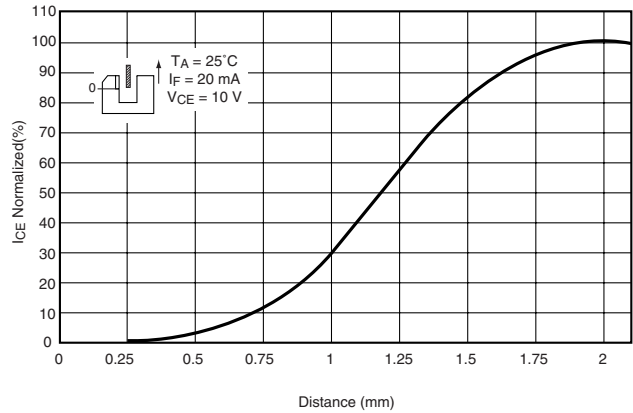


Fig. 2 Collector Current vs. Shield distance

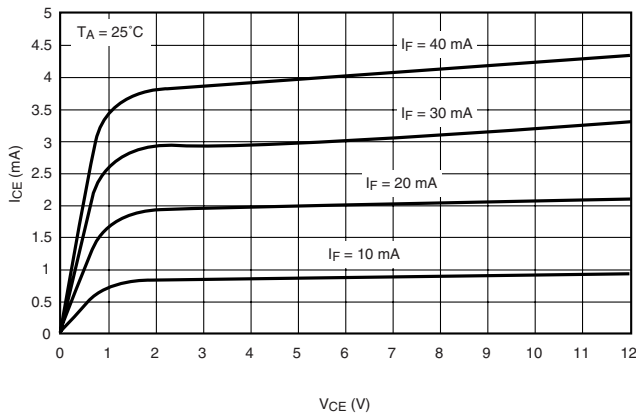


Fig. 3 Collector-Emitter Voltage vs. Collector Current

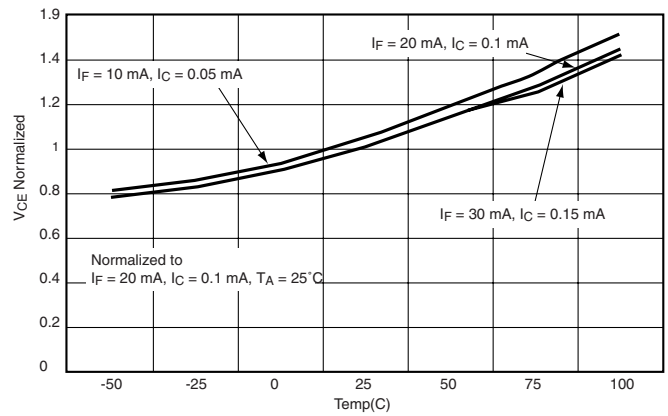


Fig. 4 Collector-Emitter Voltage vs. Temperature

TYPICAL PERFORMANCE CURVES

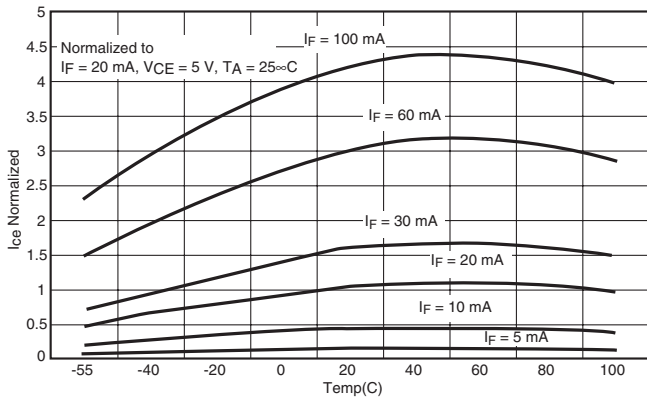


Fig. 5 Collector Current vs. Temperature

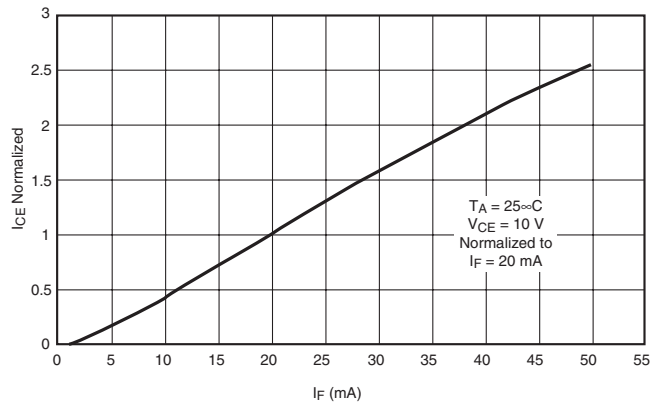


Fig. 6 Collector Current vs. Forward Current

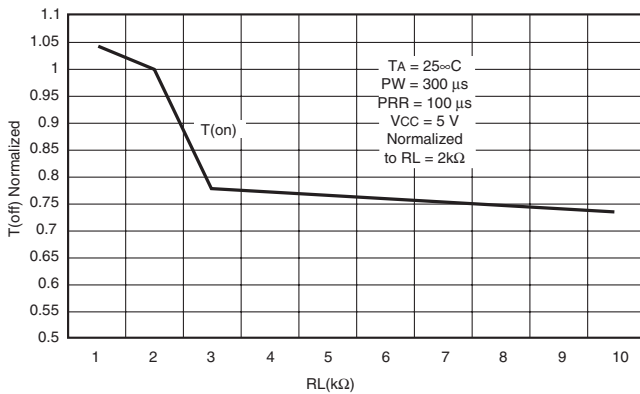


Fig. 7 Rise Time vs. Load Resistance

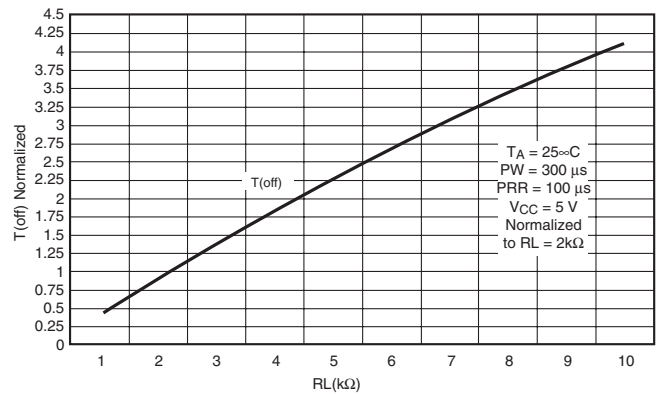


Fig. 8 Fall Time vs. Load Resistance

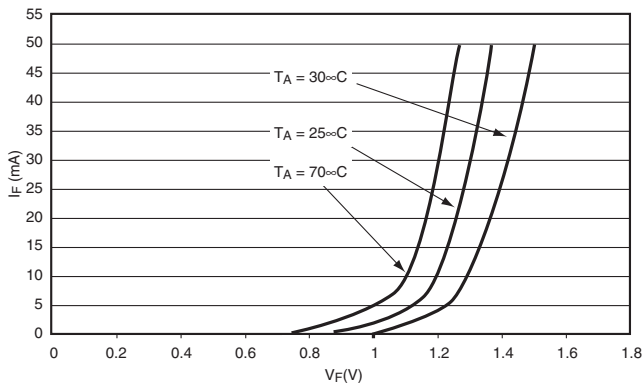


Fig. 9 Forward Voltage vs. Forward Current

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