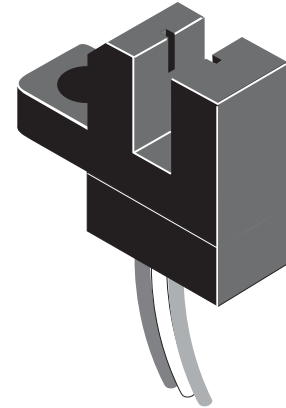
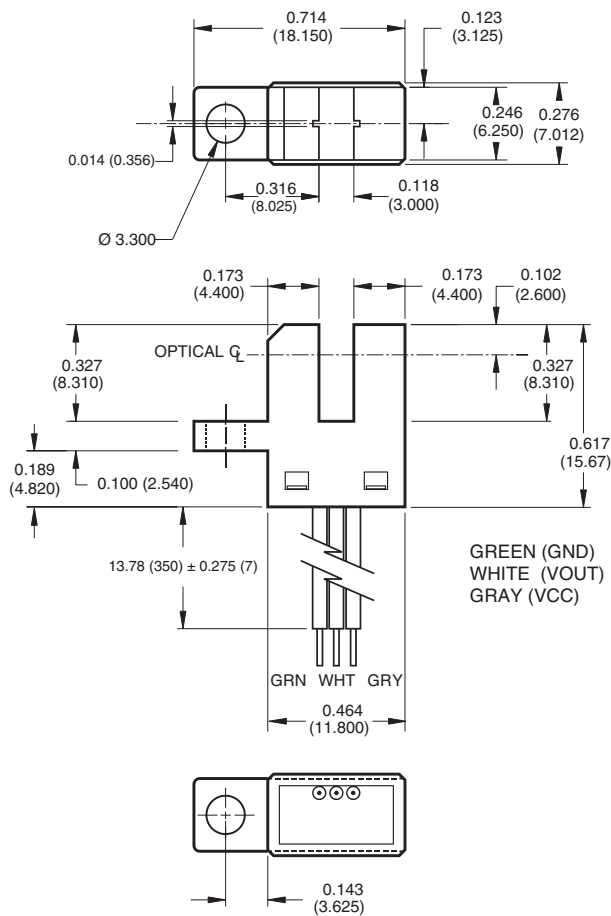


**PACKAGE DIMENSIONS**



**NOTES:**

1. Dimensions for all drawings are in inches (millimeters).
2. Tolerance of  $\pm .010$  (.25) on all non-nominal dimensions unless otherwise specified.
3. Wire gauge: 24 AWG, 7 strand, pre-tinned copper.

**FEATURES**

- No contact switching
- Mounting tab
- Wire leads for remote connection
- 3 mm slot
- Output configuration: Inverter open-collector
- TTL/CMOS compatible output
- Aperture width: .014"

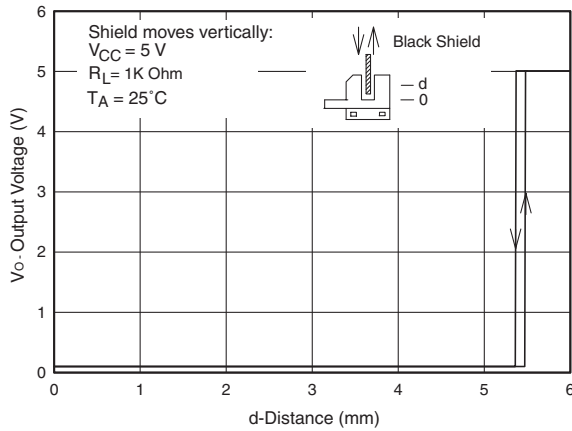
<b>ABSOLUTE MAXIMUM RATINGS</b> ( $T_A = 25^\circ\text{C}$ unless otherwise specified)			
Parameter	Symbol	Rating	Units
Operating Temperature	$T_{OPR}$	-40 to +85	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-40 to +85	$^\circ\text{C}$
Soldering Temperature (Iron) <sup>(2,3,4)</sup>	$T_{SOL-I}$	240 for 5 sec	$^\circ\text{C}$
<b>EMITTER</b>			
Continuous Forward Current	$I_F$	50	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation <sup>(1)</sup>	$P_D$	100	mW
<b>SENSOR</b>			
Output Current	$I_O$	50	mA
Supply Voltage	$V_{CC}$	16	V
Output Voltage	$V_D$	30	V
Power Dissipation <sup>(2)</sup>	$P_D$	150	mW

**NOTES** (Applies to Max Ratings and Characteristics Tables.)

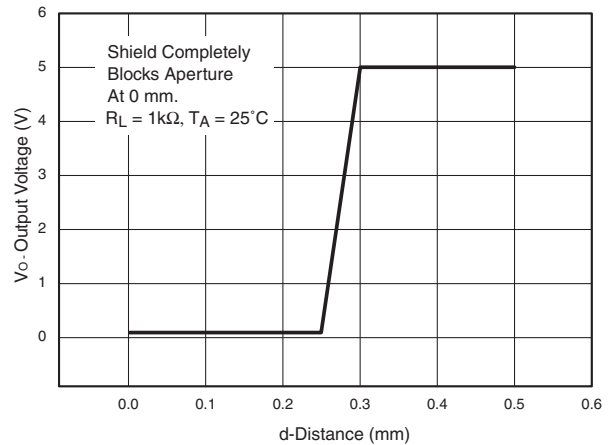
1. Derate power dissipation linearly 1.67 mW/ $^\circ\text{C}$  above 25 $^\circ\text{C}$ .
2. Derate power dissipation linearly 2.50 mW/ $^\circ\text{C}$  above 25 $^\circ\text{C}$ .
3. RMA flux is recommended.
4. Methanol or isopropyl alcohols are recommended as cleaning agents.

<b>ELECTRICAL/OPTICAL CHARACTERISTICS</b> ( $T_A = 25^\circ\text{C}$ )						
PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	TYP.	MAX.	UNITS
Operating Supply Voltage		$V_{CC}$	4.5	—	5.5	V
<b>INPUT DIODE</b>						
Forward Voltage	$I_F = 20\text{ mA}$	$V_F$	—	—	1.7	V
Reverse Leakage Current	$V_R = 5\text{ V}$	$I_R$	—	—	10	$\mu\text{A}$
<b>COUPLED</b>						
Operating Supply Current	$V_{CC} = 16\text{ V}$	$I_{CC}$	—	—	12	mA
Low Level Output Voltage	$V_{CC} = 5\text{ V}, R_L = 360\ \Omega$	$V_{OL}$	—	—	0.4	V
High Level Output Current	$V_{CC} = 5\text{ V}, V_{OH} = 30\text{ V}$ (Light Path Blocked)	$I_{OH}$	—	—	100	$\mu\text{A}$
Hysteresis Ratio			—	1.2	—	
Propagation Delay	$V_{CC} = 5\text{ V}, R_L = 360\ \Omega$	$t_{PLH}, t_{PHL}$	—	5	—	$\mu\text{s}$
Output Rise and Fall Time	$V_{CC} = 5\text{ V}, R_L = 360\ \Omega$	$t_r, t_f$	—	70	—	ns

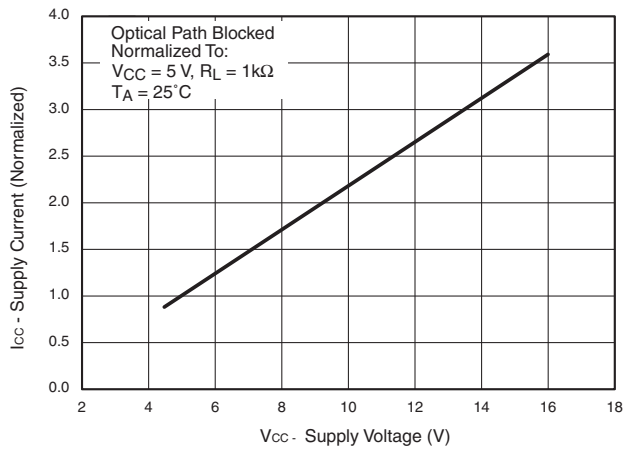
**Fig. 1 Output Voltage Vs. Shield Distance (Vertical)**



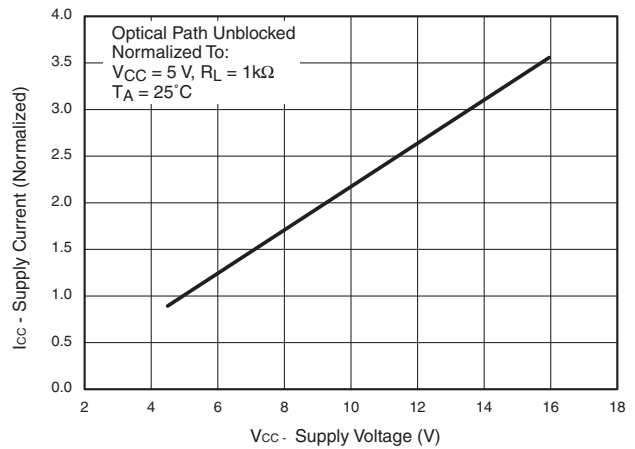
**Fig. 2 Output Voltage vs. Shield Distance (Horizontal)**



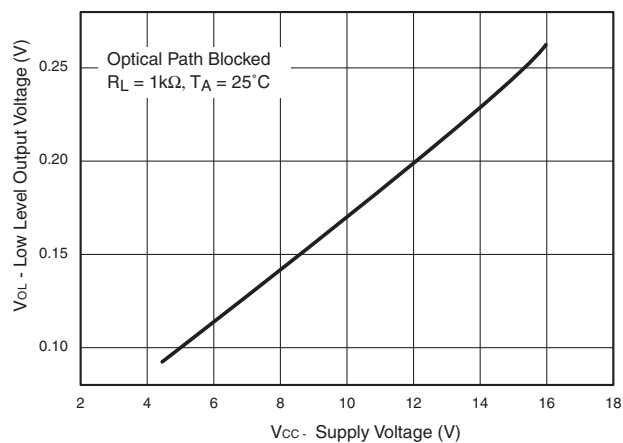
**Fig. 3 Supply Current vs. Supply Voltage**



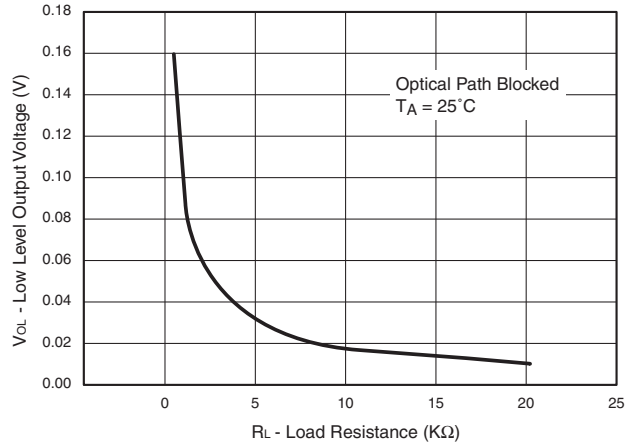
**Fig. 4 Supply Current vs. Supply Voltage**



**Fig. 5 Low Level Output Voltage vs. Supply Voltage**



**Fig. 6 Low Level Output Voltage vs. Load Resistance**





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