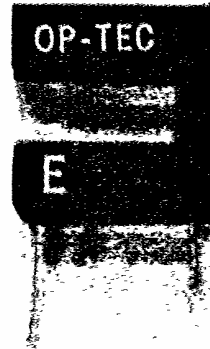




## OPTO TECHNOLOGY

### TYPE OTS271 OTS281

### PHOTO IC SIDE MOUNT OPTICAL SWITCH W/.010" APERTURE



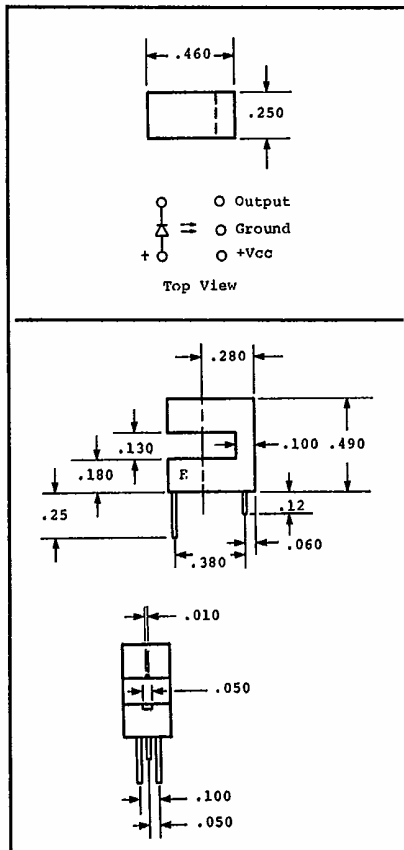
NOT ACTUAL SIZE

#### DESCRIPTION

A PC Board Mountable, side looking Optical Switch is accomplished with Opto Technology's OTS 271/281 Interrupters. Each device features a GaAs infrared emitting diode and a photo IC sensor mounted in a molded plastic

housing. The sensor consists of a photodiode with low level amplifier, Schmitt trigger, voltage regulator and open collector driver output. The housing features a .130 interrupter gap with a .010 inch aperture over the sensor.

The OTS 271 open collector output switches "ON" when the device is interrupted with an opaque material. The OTS 281 output switches "OFF" when the device is interrupted with an opaque material.



#### ELECTRICAL CHARACTERISTICS: (25°C)

INFRARED EMITTING DIODE	SYMBOL	MAX.	UNITS
Forward Current (Continuous)	$I_F$	60	mA
Forward Current (Peak) (Pulse Width=1 $\mu$ s PRR=300pps)	$I_F$	3	A
Reverse Voltage	$V_R$	6	V
Power Dissipation	$P_E$	100	mW

PHOTO I.C.	SYMBOL	MIN.	TYP.	MAX.	UNITS
Supply Voltage	$V_{CC}$	4.0	5.0	15.0	V
Supply Current	$I_{CC}$	—	4.0	10.0	mA
Collector Emitter Saturation Voltage ( $I_C = 10mA$ )	$V_{CE(Sat)}$	—	.3	.5	V
( $I_C = 25mA$ )		—	.5	.8	V
Low Level Output Current	$I_C$	—	—	50	mA
Hysteresis	—	—	12	—	%

#### COUPLED ELECTRICAL CHARACTERISTICS @ $T_A = 25^\circ C$

	SYMBOL	MIN.	TYP.	MAX.	UNITS
LED Forward Current	$I_F$	10	—	60	mA
LED Forward Voltage ( $I_F = 60mA$ )	$V_F$	—	—	1.7	V
Rise Time	$t_{on}$	—	200	500	ns
Fall Time	$t_{off}$	—	200	500	ns

Operating Temperature,  $T_a$  ..... 0°C to 70°C  
Storage Temperature,  $T_s$  ..... -55°C to 100°C