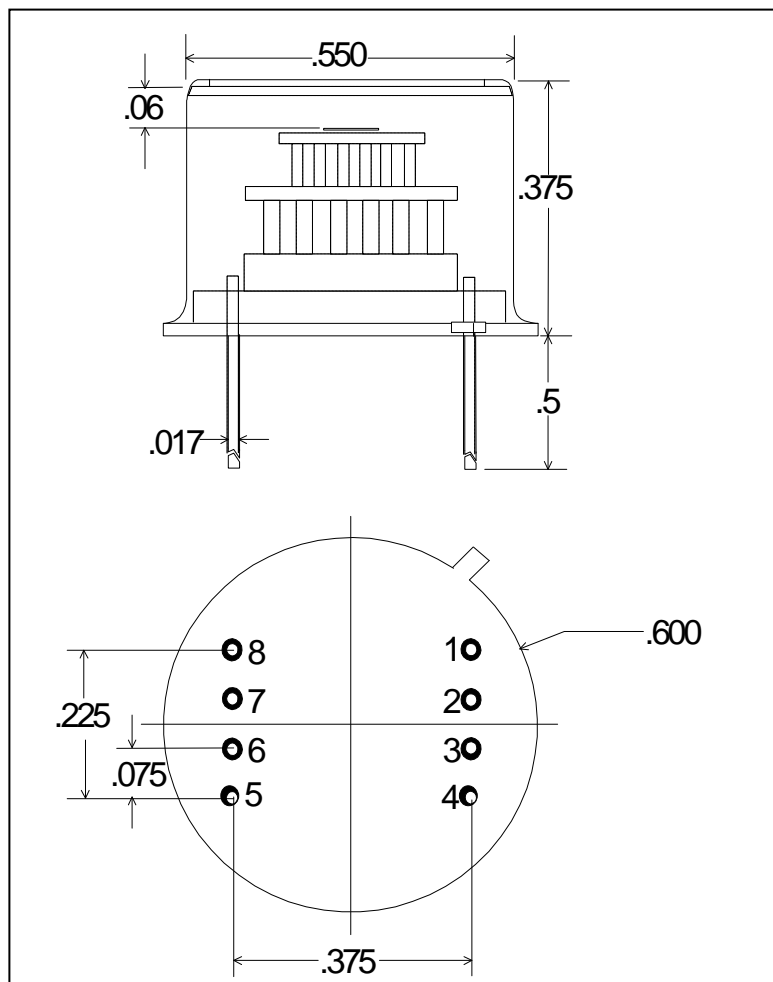


## TE - COOLED PHOTODIODES



### PIN OUT

- 1 = COOLER (-)
- 2 = THERMISTOR
- 3 = THERMISTOR
- 4 = COOLER (+)
- 5 = DETECTOR CATHODE
- 6 = DETECTOR ANODE
- 7 = NO CONNECT
- 8 = NO CONNECT

**Note:** Dimensions in Inches

### Operating Note

The TE cooled photodiode series consists of a high performance photodiode mounted on a thermoelectric cooler, all housed in a TO-8 package. A thermistor is mounted to the TEC's cold plate to provide a precise, reliable temperature monitor. Before operation VERIFY ELECTRICAL WIRING, else catastrophic damage may be sustained by the unit. Electrical power consumption can exceed 2.5 Watts (2V / 1.25A);

Therefore this package must be suitably heat sunk. Thermal grease with secure clamping is recommended for power dissipation. Temperature levels below  $-45^{\circ}\text{C}$  are possible with an optimized mechanical assembly.

### SPECIFICATIONS – GERMANIUM PHOTODIODES

Part Number	G - 030 - TE2	
Operating Temperature ( $^{\circ}\text{C}$ )	22	-30
Wavelength Range	0.8 - 1.8	0.8 - 1.7
Responsivity (A/W @ 1.5 $\mu\text{m}$ )	0.9	
Shunt Resistance ( $\Omega$ )	40 k	10 M
Shunt Capacitance (pF)	13000	13000
NEP @ 1.5 $\mu\text{m}$ (W/Hz $^{1/2}$ )	$7 \times 10^{-13}$	$4 \times 10^{-14}$
Thermistor Resistance (k $\Omega$ )	1.5 typ	40.0 typ
Cooler Current (A)	0.00	0.60 TYP.
Maximum Cooler Current (A)	1.25	