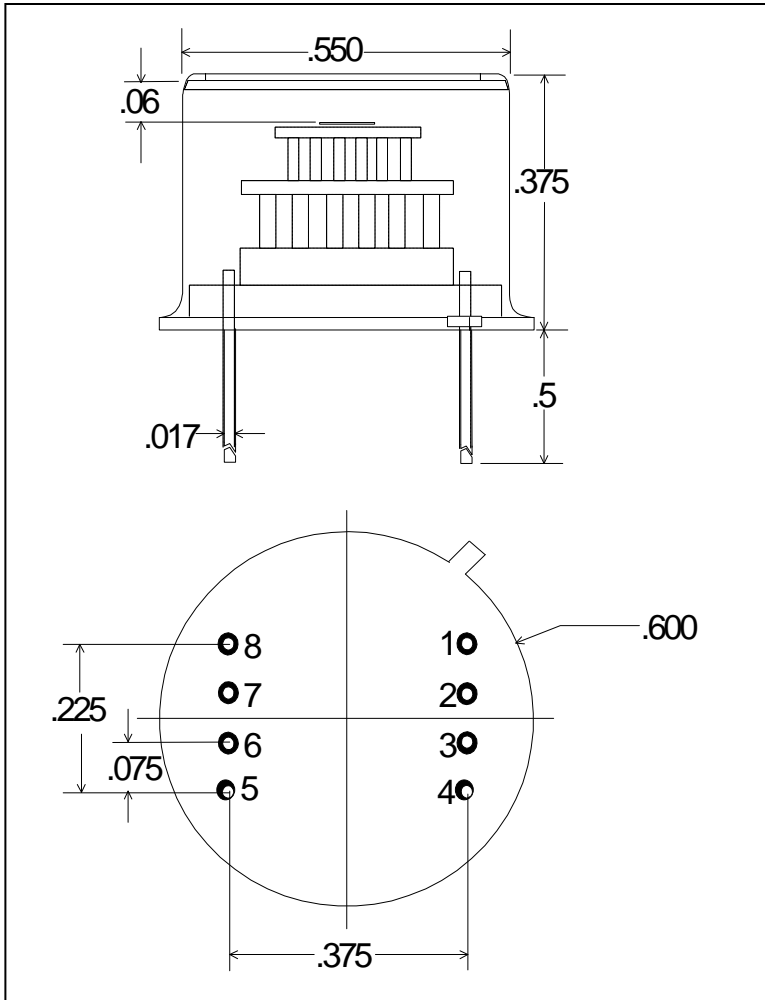


## TE - COOLED PHOTODIODE



**Part No:**

**G-020-TE2**

**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 – 2mm DIA GERMANIUM PHOTODIODE		
Operating Temperature ( $^{\circ}\text{C}$ )	22	-30
Shunt Resistance ( $\Omega$ )	90 k	50 M
Shunt Capacitance (pF)	9000	9000
NEP @ 1.3 $\mu\text{m}$ (W)	$4.5 \times 10^{-13}$	$2.0 \times 10^{-14}$
Thermistor Resistance ( $\text{k}\Omega$ )	1.5	40.0
Cooler Current (A)	0.00	0.60 TYP.
Maximum Cooler Current (A)	1.25	