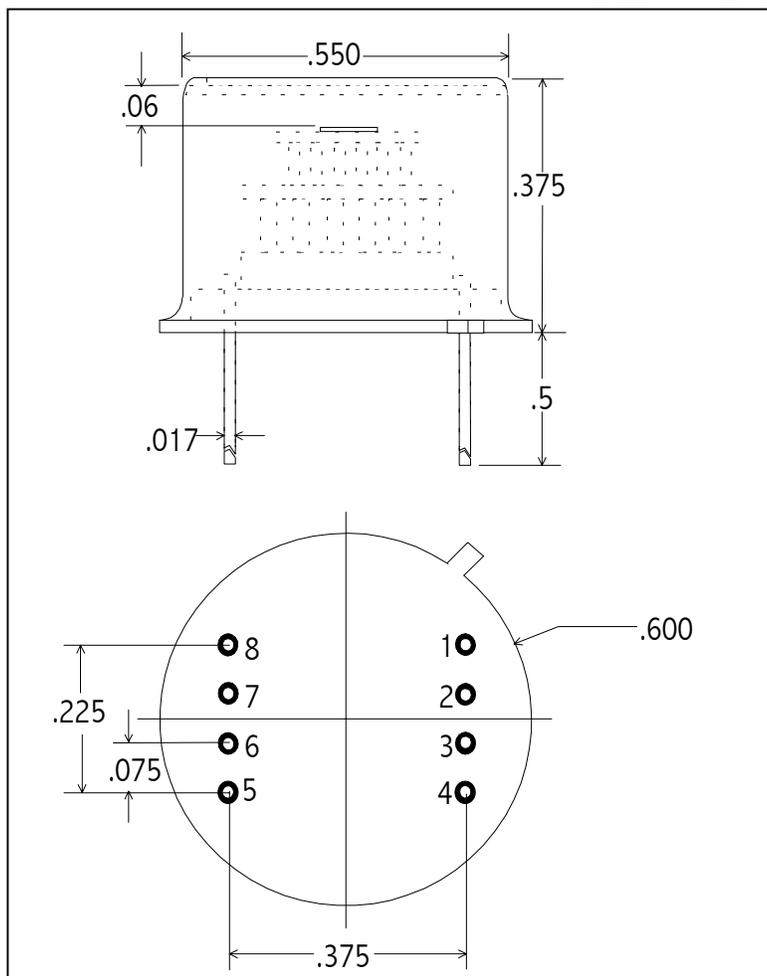


TE - COOLED PHOTODIODES



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°C are possible with an optimized mechanical assembly.

SPECIFICATIONS – GERMANIUM PHOTODIODES

Part Number	G - 020 - TE2		G - 030 - TE2		G - 050 - TE2	
Operating Temperature ($^{\circ}\text{C}$)	22	-30	22	-30	22	-30
Wavelength Range	0.8 - 1.8	0.8 - 1.7	0.8 - 1.8	0.8 - 1.7	0.8 - 1.8	0.8 - 1.7
Responsivity (A/W @ 1.5 μm)	0.9					
Shunt Resistance (Ω)	90 k	50 M	40 k	10 M	15k	5M
Shunt Capacitance (pF)	9000	9000	13000	13000	30000	30000
NEP @ 1.5 μm (W/Hz $^{1/2}$)	4.5×10^{-13}	2.0×10^{-14}	7×10^{-13}	4×10^{-14}	1.5×10^{-12}	6.0×10^{-14}
Thermistor Resistance (k Ω)	1.5	40.0	1.5 typ	40.0 typ	1.5	40.0
Cooler Current (A)	0.00	0.60 TYP.	0.00	0.60 TYP.	0.00	0.60 TYP.
Maximum Cooler Current (A)	1.25					