

## TE - COOLED PHOTODIODE

**Part No:** IGA-020-TE2

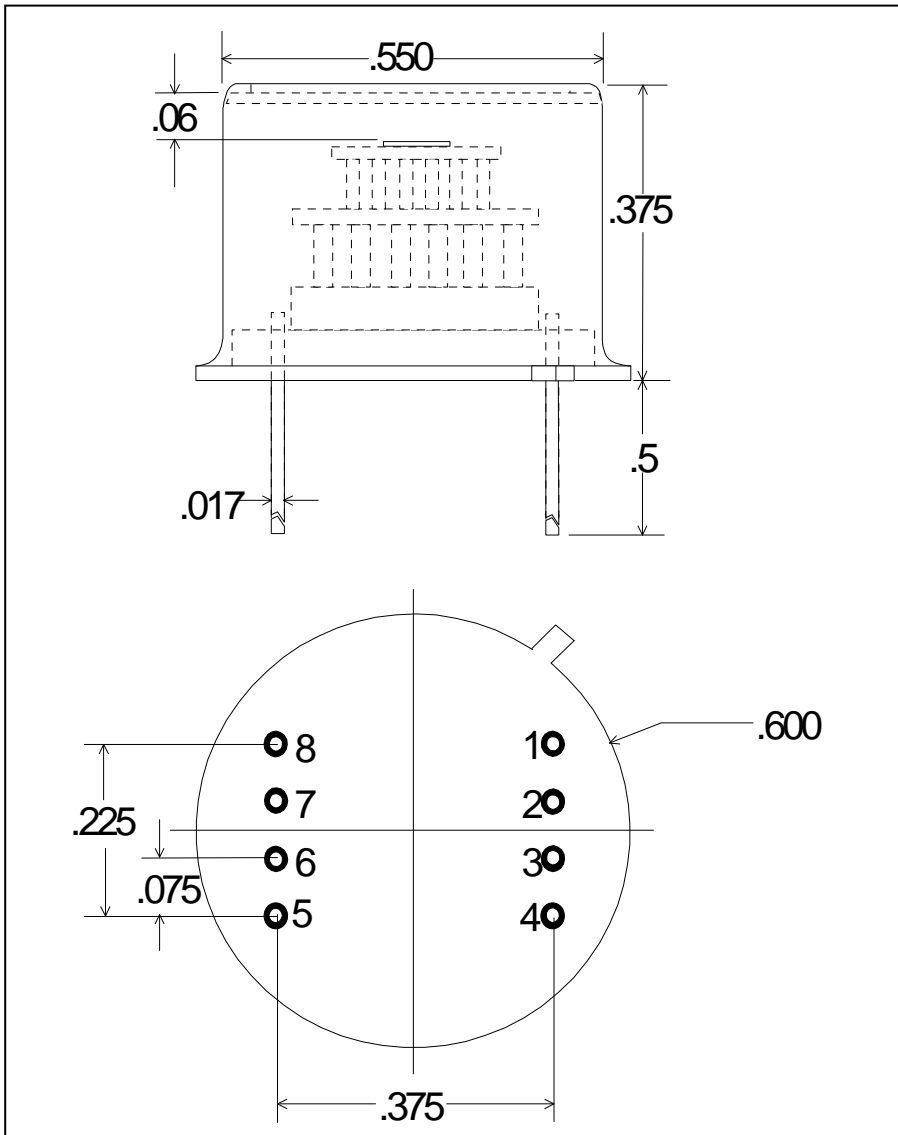
**PIN OUT**

- 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°C are possible with an optimized mechanical assembly.



### SPECIFICATIONS – 2mm DIA InGaAs PHOTODIODE

Operating Temperature (°C)	22	-30
Shunt Resistance (MΩ), min	10.	200.
Shunt Capacitance (pF), typ	400.	400.
Responsivity @ 1.3 μm (A/W)	0.9	0.9
Thermistor Resistance (kΩ)	1.6 typ	40.0 typ
Cooler Current (A)	0.00	0.60 TYP.
NEP (W/Hz <sup>1/2</sup> ) @ 1.3 μm, 100Hz	<5.0 X 10 <sup>-14</sup>	<10 <sup>-14</sup>
Maximum Cooler Current (A)	1.25	