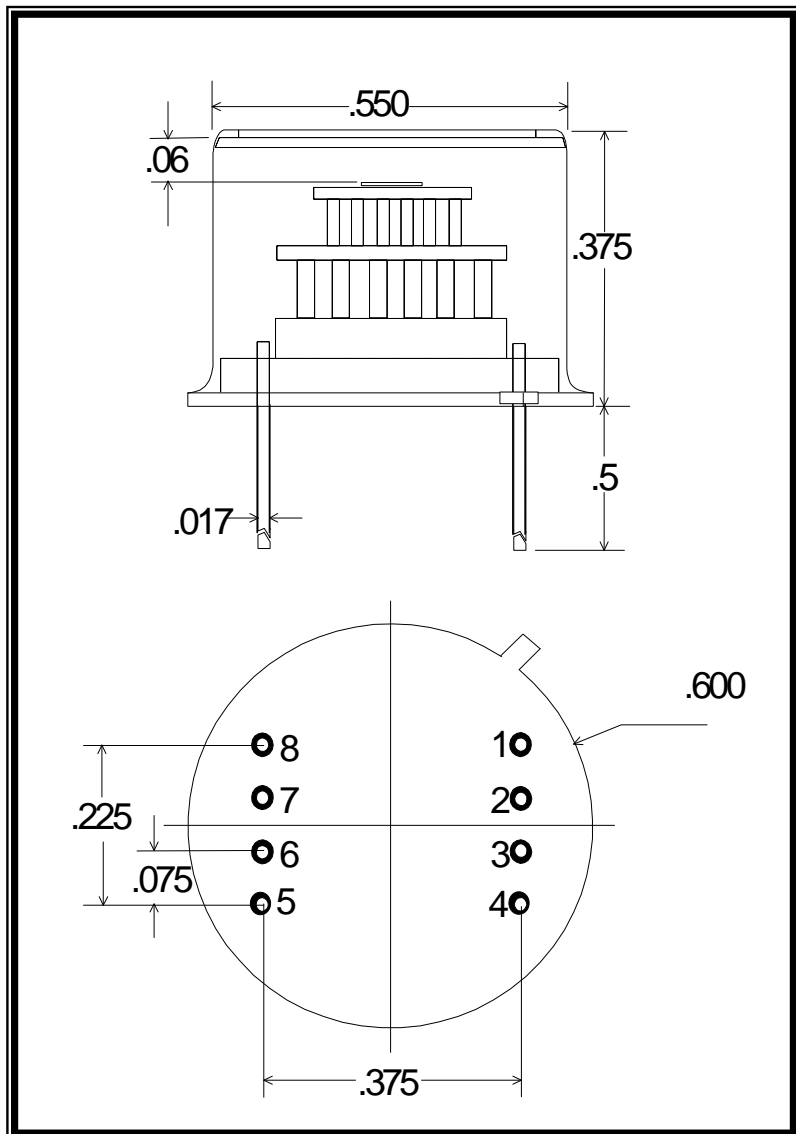


TE - COOLED PHOTODIODE



Part No: IGA1.9-010-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

Detector Type	1mm DIA extended InGaAs (TE-Cooled)	
Operating Temperature (°C)	22	-30
Shunt Resistance (MΩ)	0.3 typ	10.0 typ
Shunt Capacitance (pF), typ	100	100
Responsivity @ 1.9 μm (A/W)	1.0	1.0
NEP (W/Hz ^{1/2}) 1.9um, 100Hz	< 2.5 x 10 ⁻¹³	< 5 x 10 ⁻¹⁴
Thermistor Resistance (kΩ) typ	1.5 typ	40.0 typ
Cooler Current (A) typ	0.00	0.60 TYP.
Maximum Cooler Current (A)	1.25	