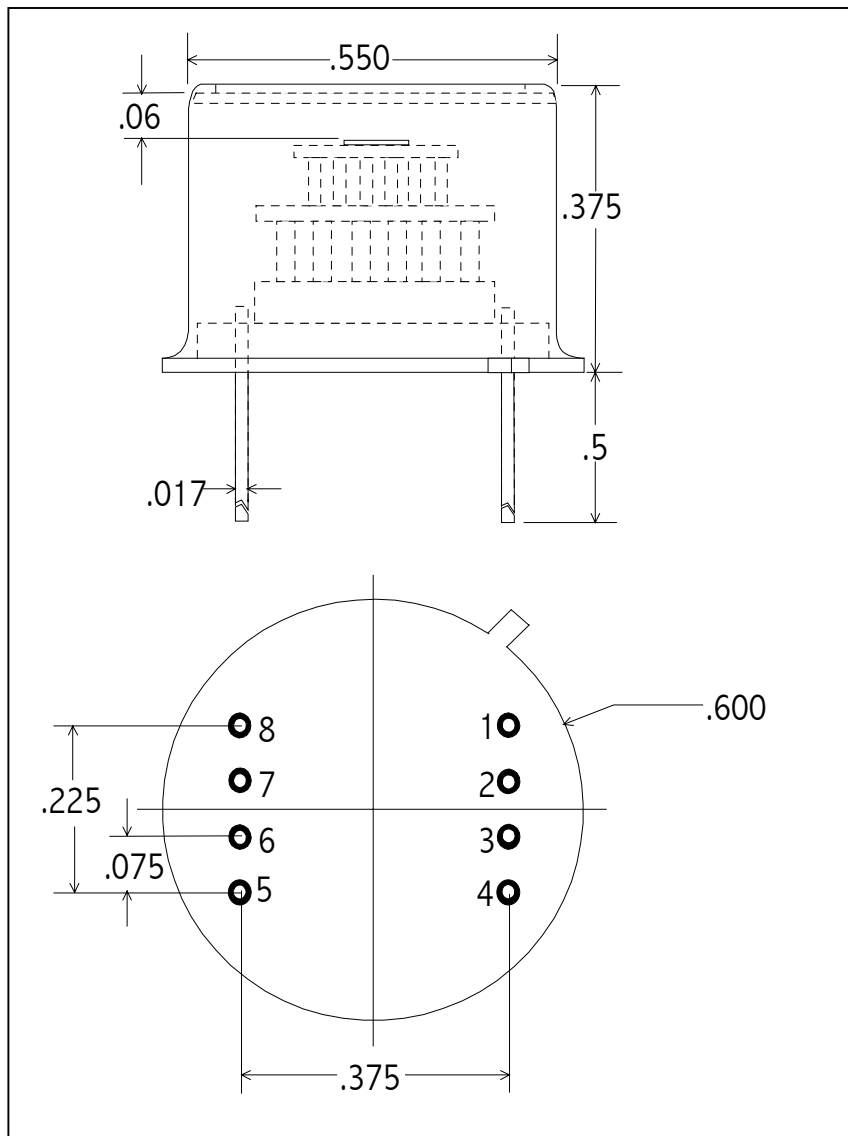


TE - COOLED PHOTODIODE



Part No: S-025-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 – 2.5mm dia Silicon Photodiode

| | | |
|----------------------------------|---------------------------|-------------------------|
| Operating Temperature (°C) | 22 | -30 |
| Shunt Resistance (MΩ) | 100 | > 1000 |
| Shunt Capacitance (pF) | 400 typ | 400 typ |
| Responsivity @ 850 nm (A/W) | 0.55 | 0.55 |
| NEP @ 850 nm W/Hz ^{1/2} | < 1.9 X 10 ⁻¹⁴ | < 5 x 10 ⁻¹⁵ |
| Thermistor Resistance (kΩ) | 1.8 typ | 40 typ |
| Cooler Current (A) | 0.00 | 0.65 TYP. |
| Maximum Cooler Current (A) | 1.25 | |