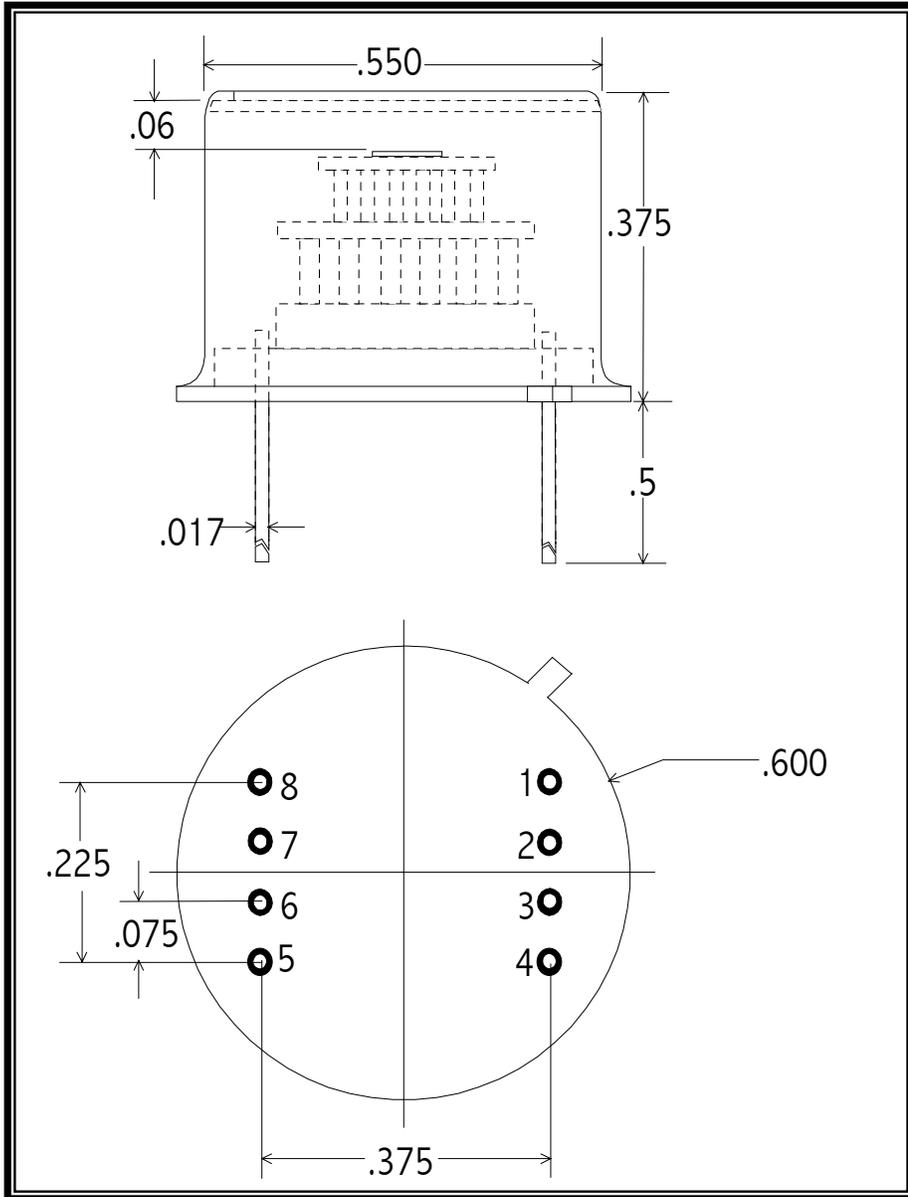


## TE COOLED MCT - SERIES PHOTOCONDUCTOR


**Part No:**
**MCT4.5-010-TE2**
**PIN OUT**

- 1 = COOLER (-)**
- 2 = THERMISTOR**
- 3 = THERMISTOR**
- 4 = COOLER (+)**
- 5 = DETECTOR**
- 6 = DETECTOR**
- 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

Operating Temperature (°C)	22	-30
Operating Wavelength	1. - 4.5 typ	1. - 4.8 typ
Resistance (Ω)	50 - 200	100 - 300
D* (pk, 10kHz,1Hz), cm-Hz <sup>1/2</sup> /W	1 x 10 <sup>10</sup>	4 x 10 <sup>10</sup>
Responsivity, V/W @ pk=4.8 μm	200	1000
Thermistor Resistance (kΩ)	1.6	40
Cooler Current (A)	0	0.75
Maximum Cooler Current (A)	1.25	