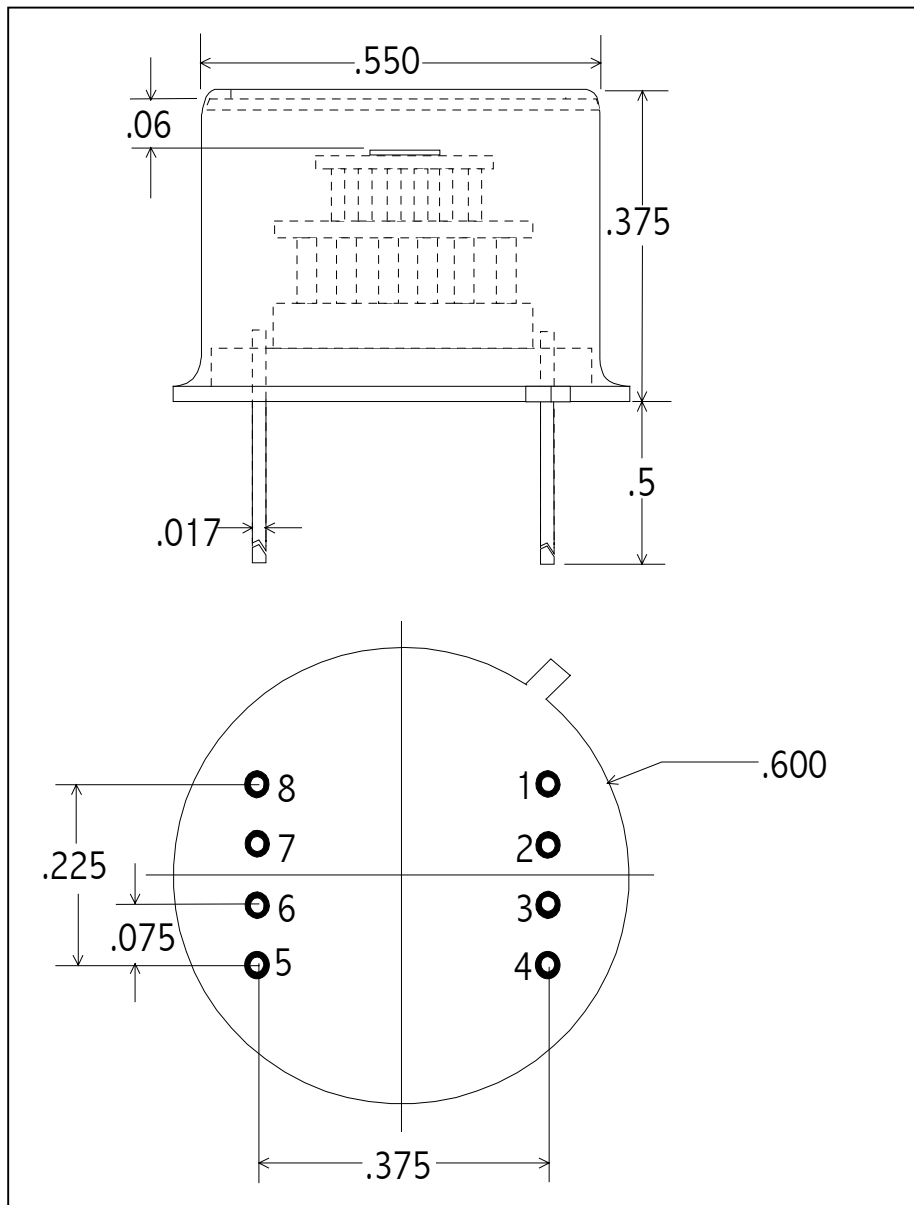


## TE COOLED PBS - SERIES PHOTOCONDUCTOR


**Part No:**
**PBS - 030 - 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 photodetector series consists of a high performance photodetector 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              | 3mm x 3mm PbS Photoconductor |                        |
|----------------------------|------------------------------|------------------------|
| Operating Temperature (°C) | 22                           | -30                    |
| Shunt Resistance (MΩ)      | 0.2 - 1.0                    | 0.5 - 3.0              |
| D* (pk, 1 kHz, 1 Hz)       | 0.8 x 10 <sup>11</sup>       | 2.5 x 10 <sup>11</sup> |
| Responsivity @ pk (V/W)    | 10 <sup>5</sup>              | 3 x 10 <sup>5</sup>    |
| Thermistor Resistance (kΩ) | 1.6 typ                      | 40 typ                 |
| Cooler Current (A)         | 0.00                         | 0.60 typ               |
| Maximum Cooler Current (A) | 1.25                         |                        |