

TE COOLED S - SERIES PHOTODIODES

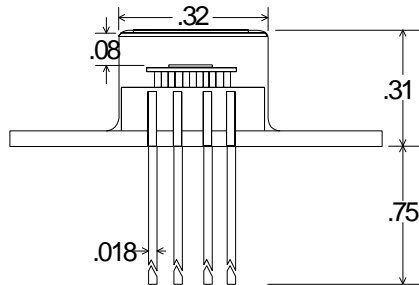
TO-37 PACKAGE

PIN OUT

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

Note:

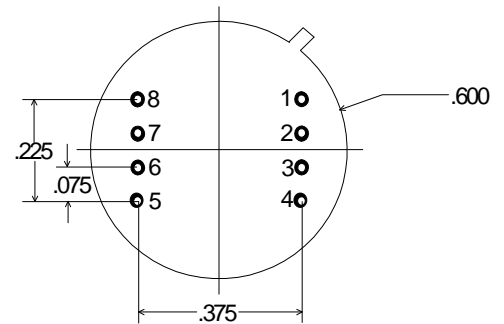
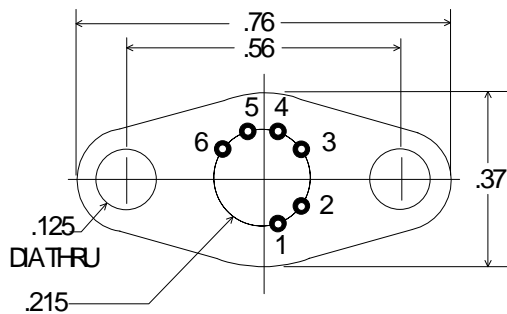
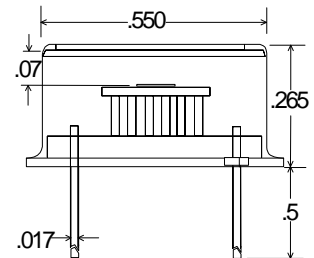
Dimensions in Inches



TO-8 PACKAGE

PIN OUT

- 1 = COOLER (-)
- 2 = THERMISTOR
- 3 = THERMISTOR
- 4 = COOLER (+)
- 5 = DETECTOR
- 6 = DETECTOR
- 7 = NO CONNECT
- 8 = NO CONNECT



Operating Note

The TE cooled photodiode series consists of a high performance photodiode detector mounted on a thermoelectric cooler, all housed in a TO-37 or 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 1watt (1V / 1.00A); therefore, this package must be suitably heat sunk. Thermal grease with secure clamping is recommended for power dissipation. Temperature levels below -10°C are possible with an optimized mechanical assembly.

SPECIFICATIONS

Part Number	S - 010 - TE1		S - 020 - TE1		S - 025 - TE1	
	22	-10	22	-10	22	-10
Operating Temperature (°C)	22	-10	22	-10	22	-10
Active Area	1 mm dia		2 mm x 2 mm		2.5 mm dia	
Shunt Resistance (MΩ)	> 500.	> 1000.	> 200.	> 1000.	> 200.	> 1000.
Responsivity (850nm) A/W,	.55	.55	.55	.55	.55	.55
NEP - W/Hz ^{1/2}	< 10 ⁻¹⁴	< 10 ⁻¹⁴	< 10 ⁻¹⁴	< 10 ⁻¹⁴	< 10 ⁻¹⁴	< 10 ⁻¹⁴
Thermistor Resistance (kΩ)	1.7 nom	7.5 nom	1.7 nom	7.5 nom	1.7 nom	7.5 nom
Cooler Current (A)	0.0	0.65	0.0	0.65	0.0	0.65
Maximum Cooler Current (A)	1.00					