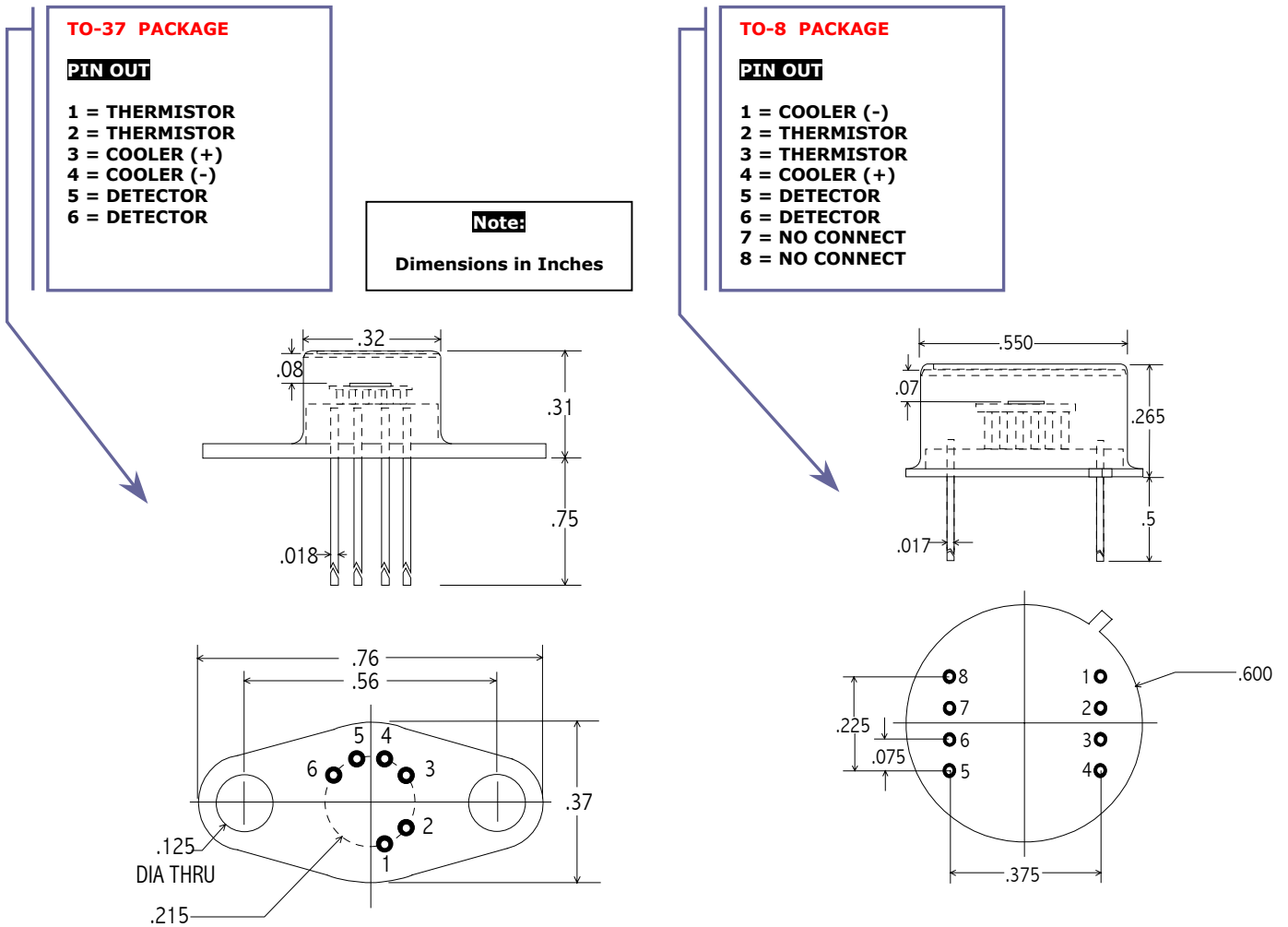


TE COOLED PBSE - SERIES PHOTOCONDUCTORS



Operating Note

The TE cooled photodetector series consists of a high performance photoconductor mounted on a thermoelectric cooler, all housed in a TO-37 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	PBSE - 010 - TE1		PBSE - 020 - TE1		PBSE - 030 - TE1	
Operating Temperature (°C)	22	-10	22	-10	22	-10
Active Area	1 mm x 1 mm		2 mm x 2 mm		3 mm x 3 mm	
Resistance (MΩ)	0.2 - 1.0	0.4 - 2.0	0.2 - 1.0	0.4 - 2.0	0.2 - 1.0	0.4 - 2.0
Responsivity (4.2um) V/W, Vbias=100V w/1M series resistor	> 10 ⁴	> 2 x 10 ⁴	> 4 x 10 ³	> 10 ⁴	> 2 x 10 ³	> 10 ⁴
D*(4.2um,1kHz,1Hz) cm-H1/2/W	> 5 x 10 ⁹	> 1.5 x 10 ¹⁰	> 3 x 10 ⁹	> 1.0 x 10 ¹⁰	> 3 x 10 ⁹	> 1.0 x 10 ¹⁰
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					