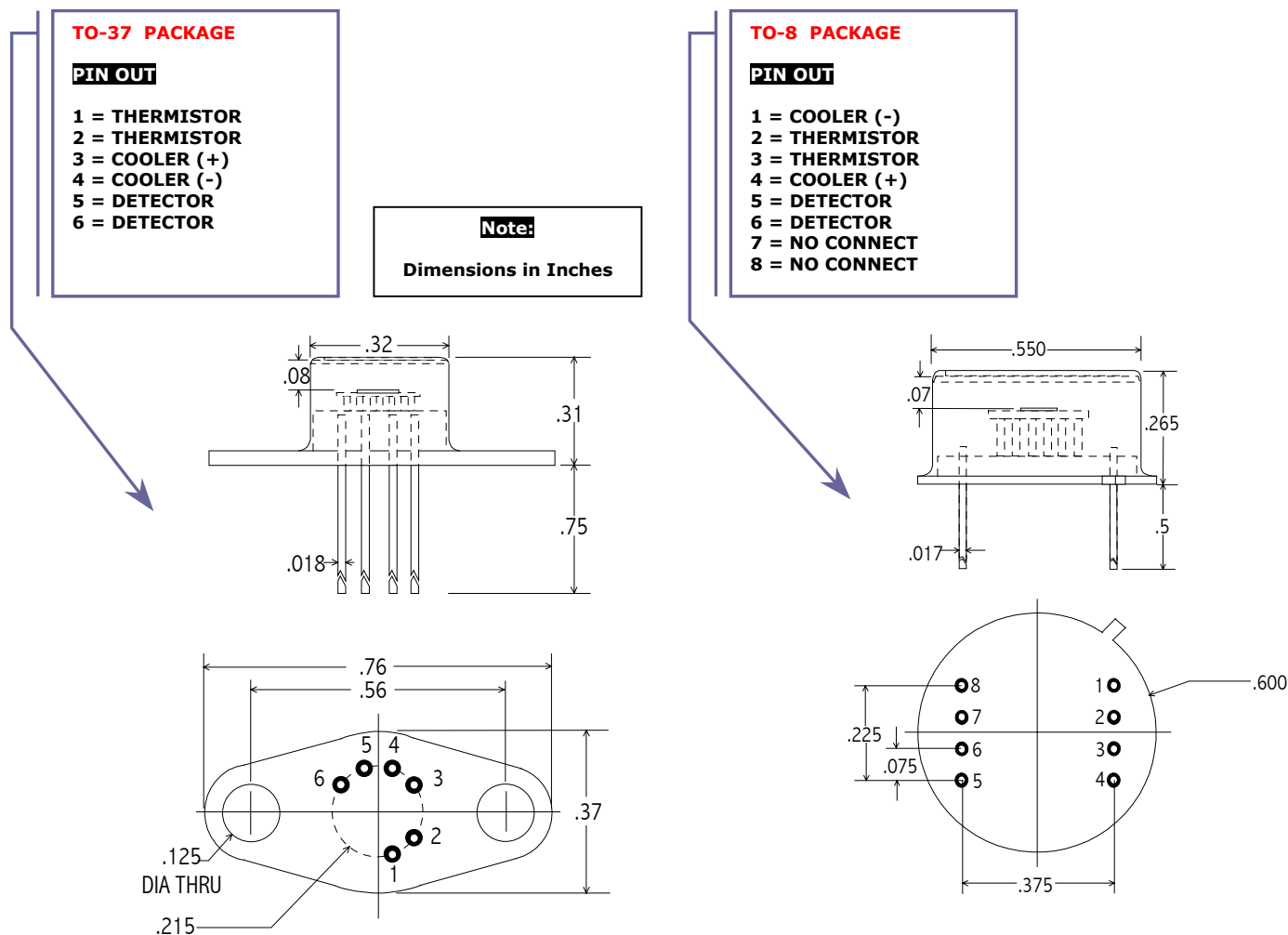


## TE COOLED PBS - SERIES PHOTOCONDUCTORS



### 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.

<b>SPECIFICATIONS</b>						
Part Number	<b>PBS - 010 - TE1</b>		<b>PBS - 020 - TE1</b>		<b>PBS - 030 - TE1</b>	
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	
Detector Resistance (Ω), typ	0.3 - 1.5 M	0.7 - 3.0 M	0.3 - 1.5 M	0.7 - 3.0 M	0.5 - 2.0 M	0.7 - 4.0 M
Responsivity (2.6um) V/W,	$> 2 \times 10^5$	$> 4 \times 10^5$	$> 2 \times 10^5$	$> 4 \times 10^5$	$1 \times 10^5$	$2 \times 10^5$
D*(2.6um,500Hz,1Hz) cm-Hz <sup>1/2</sup> /W	$> 1 \times 10^{11}$	$> 2 \times 10^{11}$	$> 1 \times 10^{11}$	$> 1.5 \times 10^{11}$	$> 8 \times 10^{10}$	$> 2 \times 10^{11}$
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					