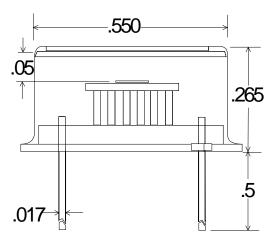
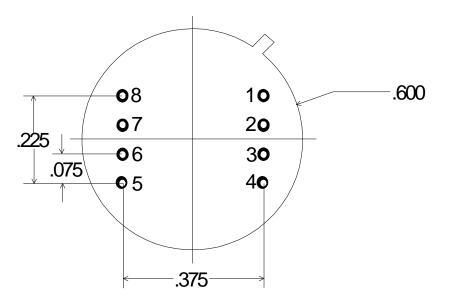


## TO-STYLE PHOTODETECTOR / AMPLIFIER





## PIN OUT

1 = n/c 2 = Inv In 3 = GND 4 = -V 5 = Gain Select 6 = Output 7 = +V 8 = n/c
Note: Dimensions in Inches

## APPLICATION NOTE

These units are high performance photoconductor / receiver modules operated at ambient temperature with a dual gain voltage amplifier. The detector's bias voltage is linked to the amplifier power supply and no additional biasing is necessary. The PC/AMP is an AC coupled dual gain detector system requiring a modulated input signal for operation.

SPECIFICATIONS@23°CNOM					
Part Number	PBSE - 010 - E8	PBSE - 020 - E8	PBSE - 030 - E8	PBSE - 050 - E8	
Active Area	1 mm x 1 mm	2 mm x 2 mm	3 mm x 3 mm	5 mm x 5 mm	
Operating Wavelength - $\mu m$	1.0 - 4.5	1.0 - 4.5	1.0 - 4.5	1.0 - 4.5	
Responsivity - V/W @ pk	1 x 10 <sup>6</sup>	5 x 10⁵	3 x 10⁵	2 x 10⁵	
Noise - V/Hz <sup>1/2</sup>	3 x 10 <sup>-5</sup>	2.5 x 10⁻⁵	3 x 10 <sup>-5</sup>	5 x 10⁻⁵	
NEP - W/Hz <sup>1/2</sup> @ pk	< 3 x 10 <sup>-11</sup>	< 5 x 10 <sup>-11</sup>	< 1 x 10 <sup>-10</sup>	< 2.5 x 10 <sup>-10</sup>	
Bandwidth (-3dB) - Hz	5 – 10 kHz	5 – 10 kHz	5 – 10 kHz	5 – 10 kHz	
Power Requirements	+/- 9 VDC to +/- 15 VDC				
Connections	BNC signal output. Shielded power cable terminated with a DB-9 connector directly couples the unit with the PS -1 Low Noise Power Supply.				