

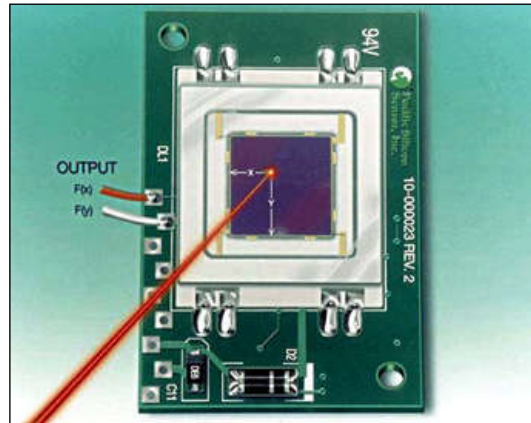
# DATA SHEET

# PSS-DL100-7PCBA

## POSITION SENSING PHOTODIODE PSS-DL100-7PCBA

The **PSS-DL100-7PCBA** is a position sensing diode with sum and difference amplifiers. It contains internal bias circuitry of 14.3 volts for the position sensing diode. The user can externally apply larger bias voltages.

Outputs are bipolar voltage analogs of the X and Y position of the light spot centroid as well as the total X current and the total Y current. These latter signals may be used to externally normalize the X and Y outputs. By normalizing the X and Y signal they become independent of the total light intensity.



### SPECIFICATIONS

Power supply voltage  $V_S$ : min  $\pm 10$  volts;  
max  $\pm 18$  volts; recommended  $\pm 15$  volts

Maximum  $\pm$  output voltage:  $+V_S - 3$ ;  $-V_S + 3$

Maximum output current limit: 25 ma

Maximum external bias:  $-V_S - 10$  volts;  
 $+V_S + 10$  volts

Maximum slew rate: 10 volts per microsecond

Theoretical noise:  $15 \text{ nV Hz}^{-1/2}$

Operating temperature: 0 to 70° C

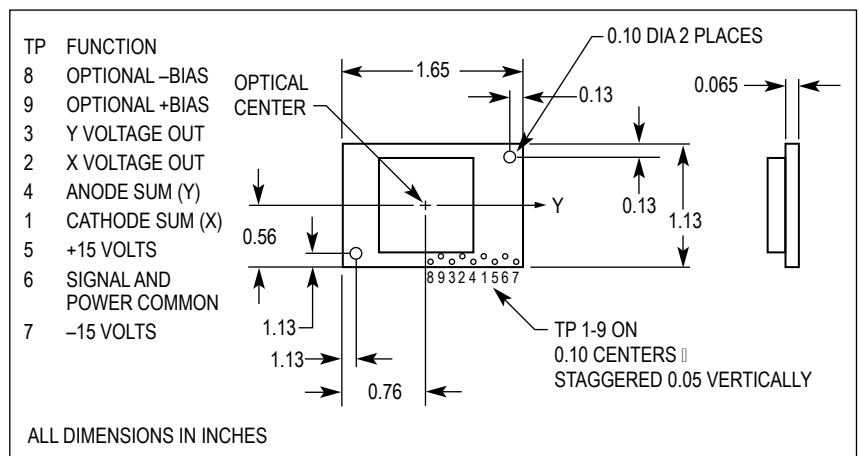
-3db bandwidth: 257 kHz

Resolution (bias dependent):  $\geq 0.25$  umeters.

Linearity (bias dependent):  $\pm 1\%$  of full scale.

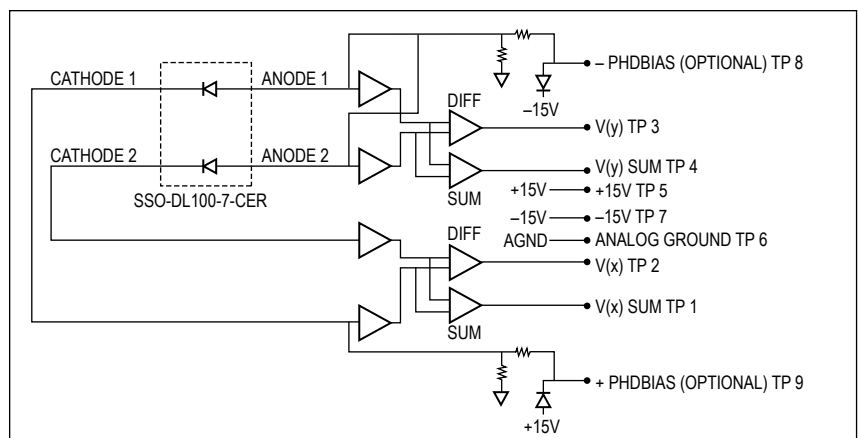
Maximum light intensity: 1.5 W/cm<sup>2</sup>.

See specification for PSS-DL100-7-CER detector.



ALL DIMENSIONS IN INCHES

Mechanical Outline



Block Diagram