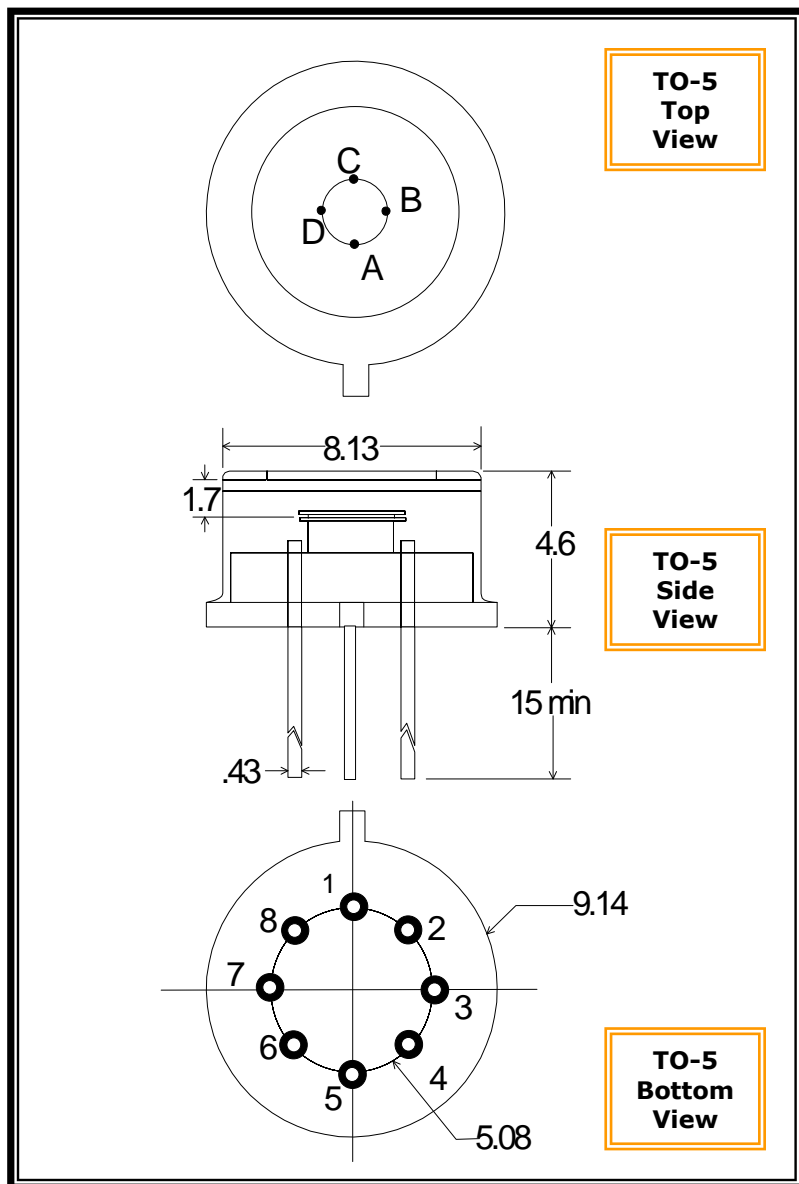


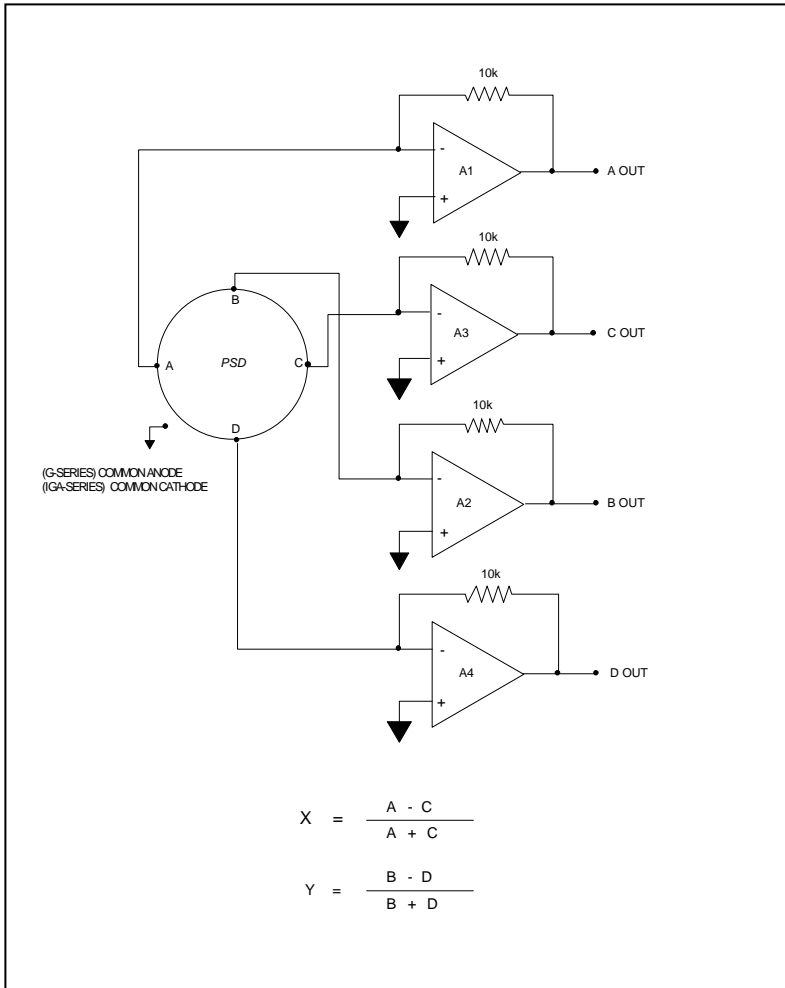
G - SERIES POSITION SENSOR PHOTODIODES



SPECIFICATIONS

Part Numbers:	G-020-PSD	G-030-PSD
Detector Type	Germanium Photodiode	Germanium photodiode
Active Diameter (mm)	2mm	3mm
Operating Wavelength (μm)	0.8 - 1.8	0.8 - 1.8
Shunt Resistance - ohms	50k min / 100k typ	25k min / 40k typ
Inter-electrode resistance - ohms	50 typ	50 typ
Shunt Capacitance (pF)	9000 typ	13000 typ
Responsivity (A/W)	0.85 min @ 1.55μm	0.85 min @ 1.55μm

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APPLICATION NOTES

The G-Series Position Sensors are a family of lateral effect photodiodes sensitive in the near-IR region of the spectrum – from 800nm to 1700nm. They offer continuous beam position sensing capability over a selection of active sizes and are available as components or as integrated photodiode/preamplifier subassemblies (Receiver Modules).

The devices are similar in operation to the more traditional Silicon lateral-effect PSD's, with a few important differences in electrical characteristics – the shunt resistance and inter-electrode resistances. Basically, they consist of a common anode and four separate cathodes as shown on the left.

The relative magnitudes of the signals from the four top contacts are used to determine the beam position on the photodiode. They have good spatial linearity in the central portion of the active area and with calibration they offer extremely accurate and repeatable measurements. The resolution depends on the incident power level, typically in the 10uW to 10mW range.