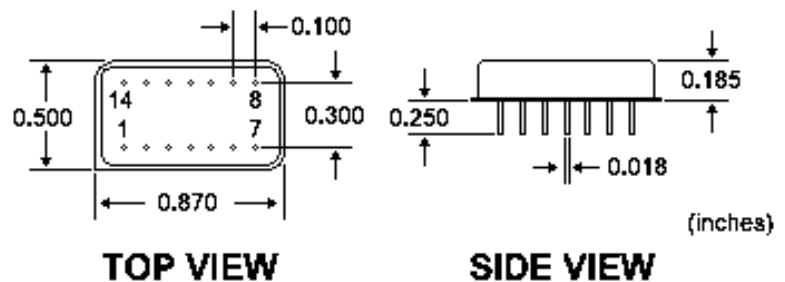


Charge Sensitive Preamplifier A250



State-of-the-art.

- External FET allows matching to detector
- FET can be cooled
- Noise at room temperature ~100 electrons RMS
- Low power (19 mW typical)



The A250 is a hybrid state-of-the-art Charge Sensitive Preamplifier for use with a wide range of detectors having capacitance from less than one, to several thousand picofarads. Such detectors include silicon, CdTe, CZT, and HgI₂ solid state detectors, proportional counters, photomultiplier tubes, piezoelectric devices, photodiodes, CCD's, and others.

To permit optimization for a wide range of applications, the input field effect transistor is external to the package and user selectable. This feature is essential in applications where detector and FET must be cooled to reduce noise. In all applications, it allows the FET to be matched to the particular detector capacitance, as well as to noise and shaping requirements. In larger quantities, the A250 may be specially ordered with an internal FET. The noise performance of the A250 is such that its contribution to FET and detector noise is negligible in all charge amplifier applications, i.e., it is essentially an ideal amplifier in this respect.

The internal feedback components configure the A250 as a charge amplifier; however, it may be used as a high performance current or voltage preamplifier by choice of suitable feedback components.

While these preamps were designed for multidetector satellite instrumentation, their unique characteristics make them equally useful in a broad range of laboratory and commercial applications.

Features

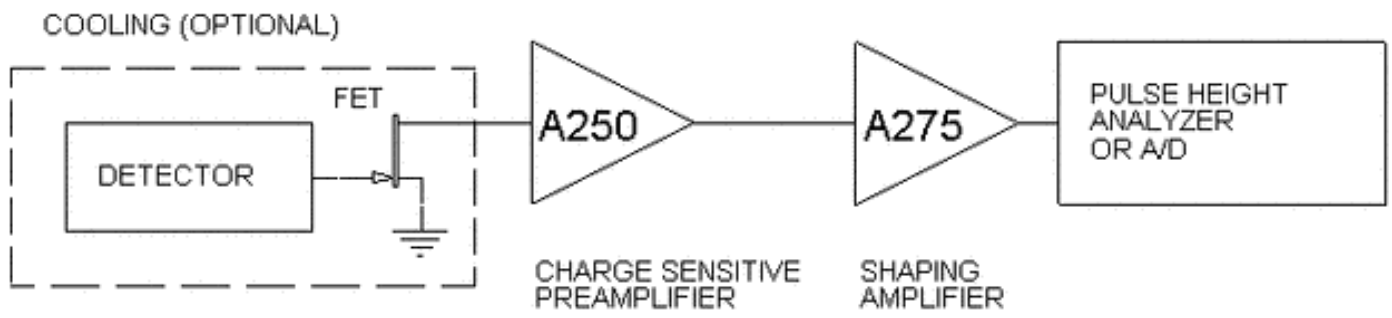
- Ultra low noise
- Low power
- Fast rise time (2.5 ns at 0 pF)
- External FET (allows selection or cooling)
- Positive or negative signal processing
- Pin selectable gain
- Small size (14 pin hybrid DIP)
- High reliability screening
-

Applications

- Nuclear physics
- Portable instrumentation
- Nuclear monitoring
- Particle, gamma, and x-ray imaging
- Medical and nuclear electronics
- Electro-optical systems

- One year warranty

Typical Application



[Price Info / Quotation / Questions](#)