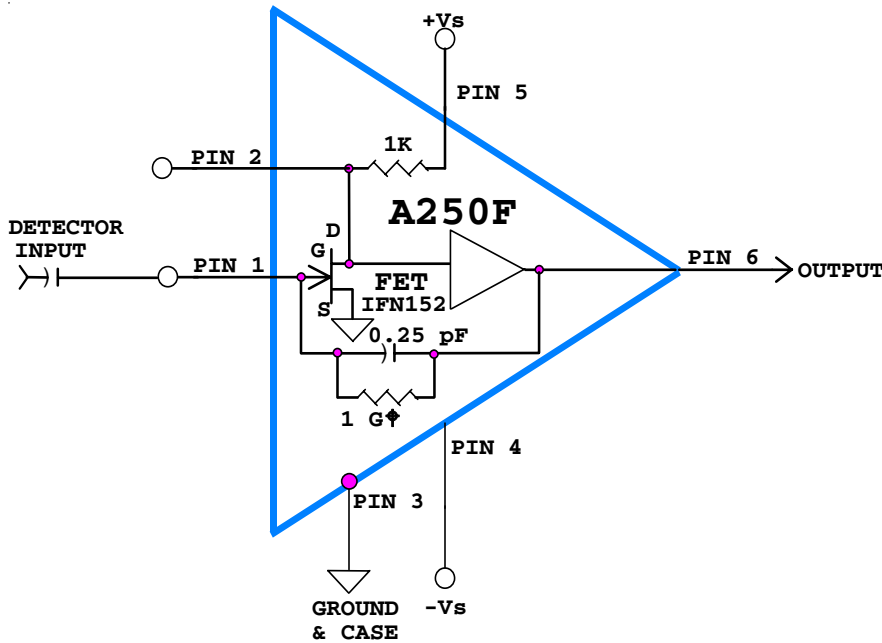


# CHARGE SENSITIVE PREAMPLIFIER

# A250F

## Single In-line Package (SIP)

The A250F is a high density version of the Amptek A250 Charge Sensitive Preamplifier. The A250F includes the input FET (IFN152).



### A250F PIN CONFIGURATION

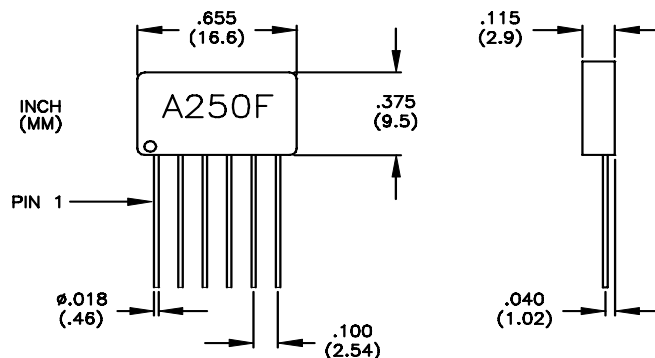
|       |                    |
|-------|--------------------|
| Pin 1 | Input              |
| Pin 2 | FET Drain          |
| Pin 3 | Ground & Case      |
| Pin 4 | -Vs (-6 V Typical) |
| Pin 5 | +Vs (+6 V Typical) |
| Pin 6 | Output             |

### NOTES

1. The internal feedback resistor  $R_f = 1 \text{ G}\Omega$ .
2. The internal feedback capacitor  $C_f = 0.25 \text{ pF}$   
Sensitivity (gain) =  $175 \text{ mV/MeV (Si)}$   
 $4 \text{ V/pC}$   
 $0.64 \mu\text{V/electron}$
3. For lower sensitivity applications,  $C_f$  can be increased externally.
4. The internal  $1 \text{ k}\Omega$  resistor from Pin 2 to Pin 5 provides the FET with a drain current of  $I_{DS} = 2.75 \text{ ma}$ .  $I_{DS}$  can be increased by adding an external resistor ( $R < 1 \text{ k}\Omega$ ) from Pin 2 to Pin 5.

**Please refer to the A250 specifications for further information.**

### A250F MECHANICAL DIMENSIONS



**AMPTEK, INC.** 14 DEANGELO DRIVE, BEDFORD, MA 01730-2204 USA

TEL: +1 (781) 275-2242 FAX: +1 (781) 275-3470 email: sales@amptek.com www.amptek.com