

## AMPTEK, INC.

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## **CAUTION for the A111**

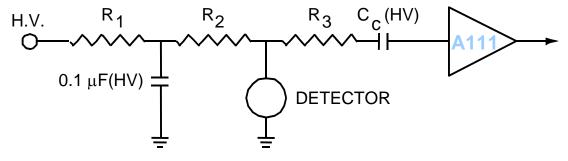
This device incorporates an input protection network (see specifications). However, it is not possible to fully protect against high voltage discharge through the input.

Two precautions should be kept in mind:

- 1) The high voltage coupling capacitor should be of sufficient voltage rating that it cannot break down under operating conditions.
- 2) When detector bias is turned on, the rise of high voltage at the detector should be slow enough to prevent large transient currents through the coupling capacitor into the input. This is normally provided for by a high voltage RC Filtering network with components of adequate voltage rating.

In general, it is important to avoid high voltage discharge in any part of the circuit.

## **EXAMPLE:**



Where typically  $R_1$ ,  $R_2 > 1$  M

R<sub>3</sub> optional additional protection to limit input current, usually less than 1 K