Peak Reading Audio Level Meter



Important Note: This circuit will only work with a MOSFET opamp !

Application Notes:

Using minimum component count; this simple circuit will indicate peak audio response on an analogue meter, similar to a tape recorders meter. The circuit uses an opamp as a non inverting amplifier, but with one addition - a diode in the feedback loop. The circuit has a fast response time and slow decay time to indicate peak readings. The 1N4148 diode provides half wave rectification of the input signal, the dc output being smoothed by the 22u capacitor. the capacitor will charge to the peak value of the input waveform, and then discharge via the meter and 18k resistor. I used a meter with a FSD of 150uA, but any meter with a FSD in the range 50-250uA may be used. The discharge time is around a quarter of a second. Increase the 22uF cap for a longer discharge time, or omit altogether to make an instantaneous reading level meter.

This circuit will only work with a MOSFET type opamp, bipolar types i.e. 741 and J-FET opamps such as LF351 will not work in this circuit.