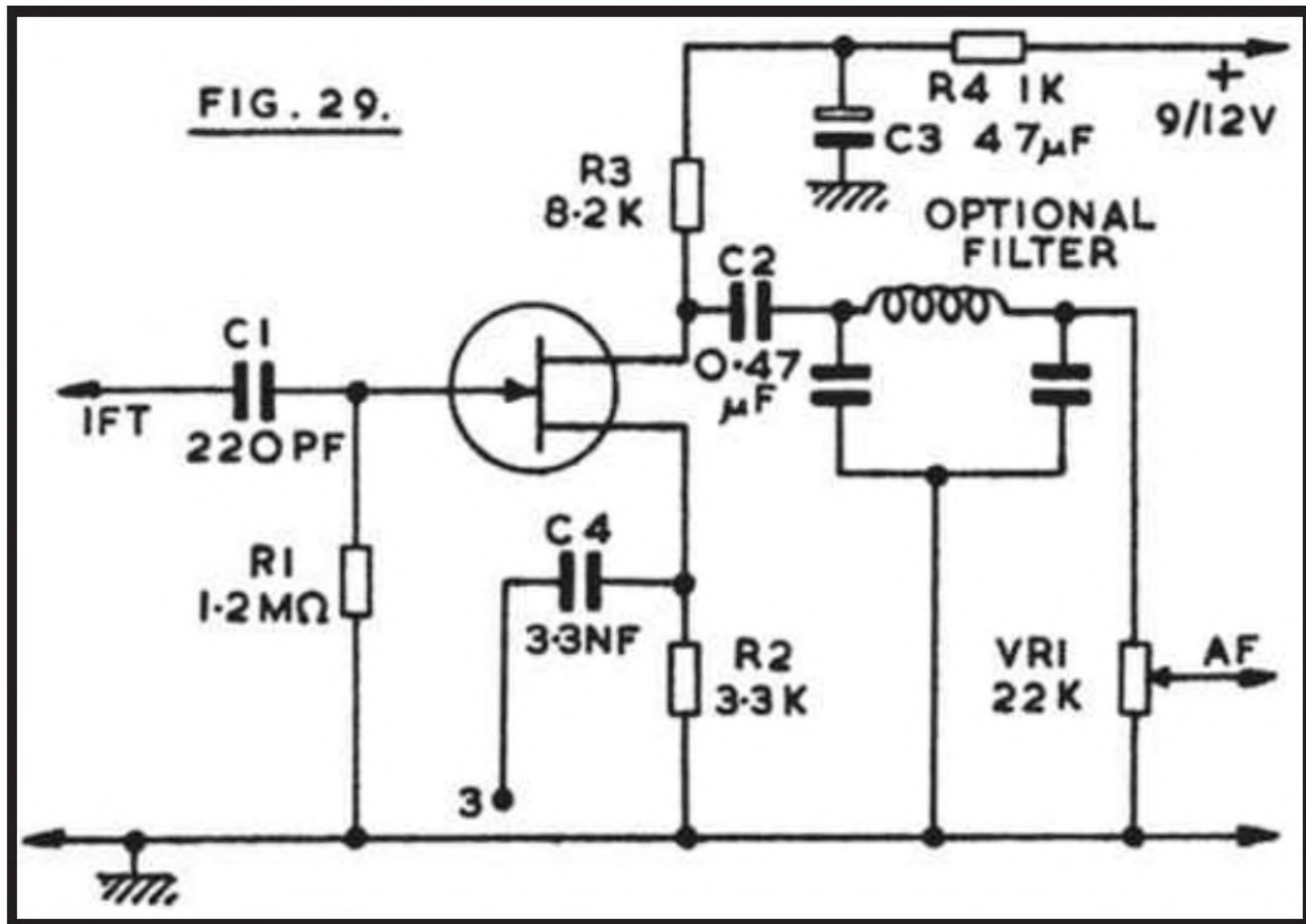


Product Detector for SSB and CW

General purpose receivers have a diode detector, usually fitted for AM reception (and often to supply an automatic volume control voltage for an early IF amplifier). This type of detector can only operate well with CW or SSB when signals are not so strong that they swamp the BFO carrier. The experimenter or constructor may thus wish to provide a product detector, and Figure 29 can be used.



Two inputs are required to the FET. That to C1 is taken from the secondary of the final IFT in the receiver. C4 is connected to 3 in Figure 28.

The audio filter is optional, and is designed to reduce the higher frequencies, not necessary for communication purposes. If employed, it can have two 2nF capacitors, with a 100mH choke. The choke, if not screened, should not be located where it may pick up hum from a mains power supply.

After adding this detector, a slight readjustment of the tuning of the final IFT may be necessary. The associated BFO or CO is used in the manner already explained.

Where resolution of strong SSB signals fails merely because the transmission is too strong, an easy solution to this difficulty can be found in fitting an aerial attenuator. Figure 7 shows how a potentiometer can be employed, with no changes to receiver circuits.