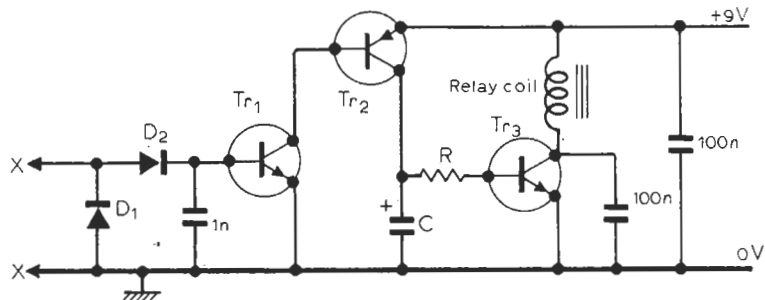
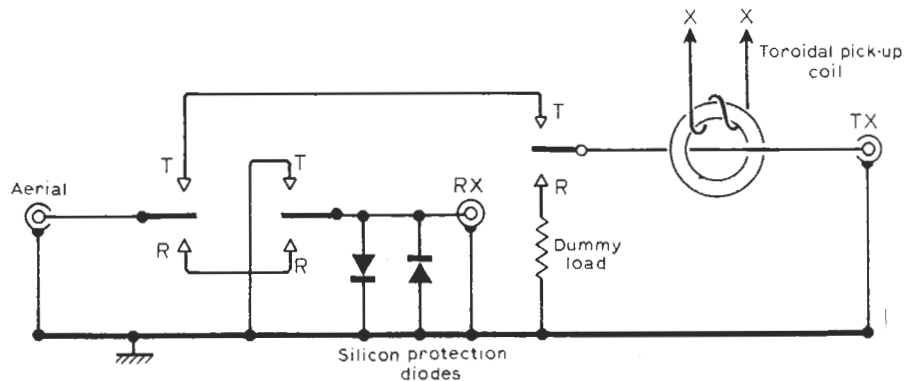


R.f. operated aerial switch



This aerial switch offers good isolation and negligible attenuation, without the use of high voltage bias supplies. The unit is simply connected into the aerial lead and no connections are made to the receiver or transmitter power supplies.

When an r.f. signal appears in the dummy load, a sample is picked up by the coil, rectified, and used to turn on the transistor circuit. The relay then changes to transmit. When the r.f. ceases, the discharge of C produces a small delay so that the relay only switches at the beginning and end of a period of c.w. transmission. The switch to transmit is rapid and a $100\mu\text{F} \times 15\text{k}\Omega$ produces a delay of two seconds when switching to receive.

A few turns on a toroid is sufficient for a pick-up coil with an output of 1W. In the receive condition the circuit requires only $30\mu\text{A}$ so a battery can be left in circuit. With short leads and the unit mounted in a screened case, the circuit functions from topband to two metres. The transistors are general purpose silicon types but D_1 and D_2 should be germanium.

I. Braithwaite,
Clitheroe,
Lancs.