(Figures 1 and 2) correct for the discontinuity introduced by the diode. The rf is bypassed through a 300-pf mica disc capacitor, and the detected output is brought out through the shielded connector at the side of the unit. Rf terminals are electrically symmetrical, and all connectors are Type 874.

1.3 TYPE 874-VQL. The Type 874-VQL Voltmeter Detector is identical to the Type 874-VQ except that it employs locking Type 874-BL Coaxial Connectors. These connectors are compatible with both locking and nonlocking Type 874 Connectors. When two locking connectors are mated with each other, a firm mechanical coupling is achieved. Also, the shielding is improved significantly over that of the standard connector and, in general, the leakage is reduced by at least 50 db. In terms of VSWR, a locking connector mated with a nonlocking connector is equivalent to two nonlocking connectors mated. The VSWR characteristics of the basic Type 874-BL Locking Connector are similar to those of the basic Type 874-B (nonlocking) Connector, and both are described in the General Radio catalog. The quick-disconnect feature of the standard Type 874 Coaxial Connectors is retained in the locking type if the coupling nut is not engaged. However, in this case, the shielding is less effective.

2 OPERATING CHARACTERISTICS.

2.1 VSWR. Because of the compensating sections, the VSWR of the unit is low at frequencies up to over 2000 Mc. A typical curve, Figure 3, is measured with one r-f end terminated in 50 ohms. If the detected output is fed into an indicator with very low dc resistance and the signal level is high, the VSWR may increase as indicated in Figure 4.

2.2 FREQUENCY CORRECTION. Due to resonance in the diode, the indicated voltage varies with frequency. A correction curve giving the ratio

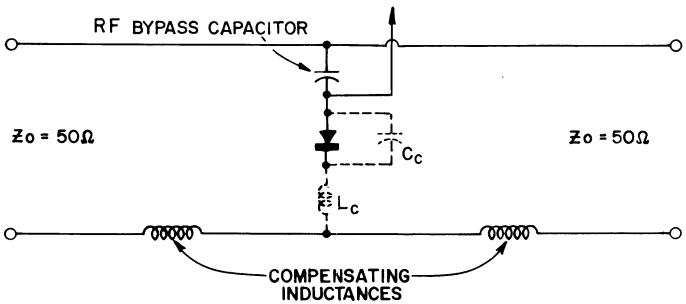

Figure 2.