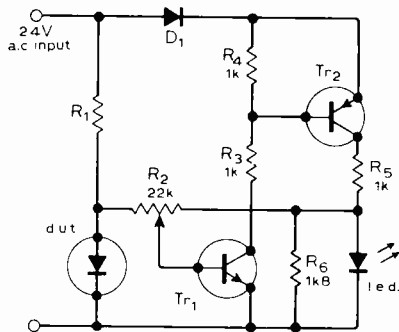


Diode forward-voltage tester

Many circuits use a diode in the forward voltage mode. This circuit enables diodes to be selected for forward characteristics using go-no go indication. The diode under test has a.c. passed through it via R_1 . On positive half cycles the diode is forward biased and D_1 passes voltage to the rest of the circuit. The diode's forward voltage drop across R_2 and R_8 causes a potential at Tr_1 base which can be adjusted. If this voltage is sufficient to turn Tr_1 on, then Tr_2 will also turn hard on to illuminate the l.e.d. and give positive feedback through R_2 . The l.e.d. will stay on for a half cycle.

The base-emitter junction of Tr_1 is used as a reference and is temperature sensitive but the diode offsets this. A complementary circuit can be made to measure the same diode on alternate half cycles. If an unmarked



diode is connected, one of the half cycles will be effective which will extinguish one l.e.d. to indicate a good diode and its polarity.

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