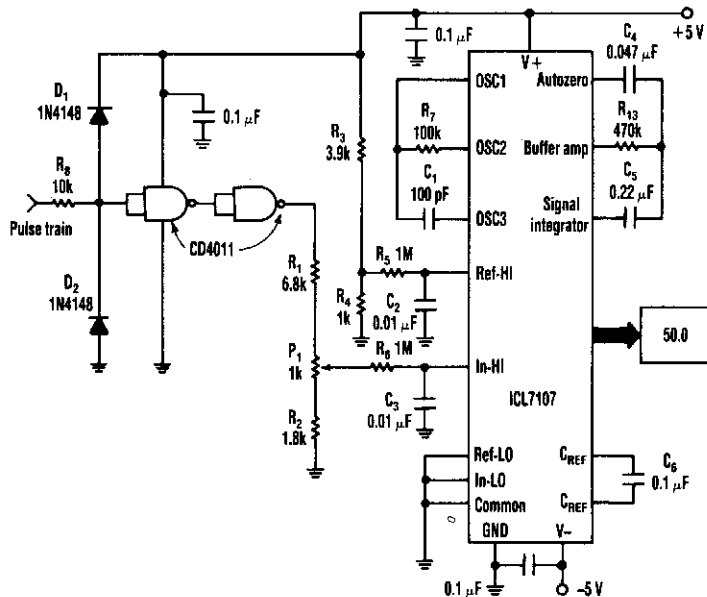


DUTY-CYCLE MEASURER



ELECTRONIC DESIGN

Fig. 46-1

An Intersil 7101 3 $\frac{1}{2}$ -digit A/D converter is used to display the duty cycle of a pulse train as a percentage. The frequency range of this circuit is 100 Hz to 250 kHz. The CMOS gates convert the pulse train to constant amplitude. This amplitude is then compared to a reference of 1 V, derived from R_3 and R_4 . P_1 is for calibration.