

Rumore digitale (cenni)

ALCUNI PROBLEMI DI RUMORE IN CIRCUITI DIGITALI

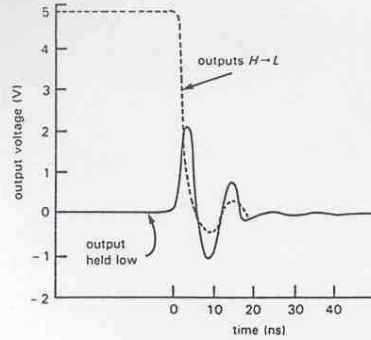


Figure 8.95. 74AC244 octal buffer, driving seven 50pF loads H→L, holding eighth output LOW. "Ground" is a copper plate (1 oz/ft²). (After Fig. 1.1-4, TI Advanced CMOS Logic Designer's Handbook.)

CMOS

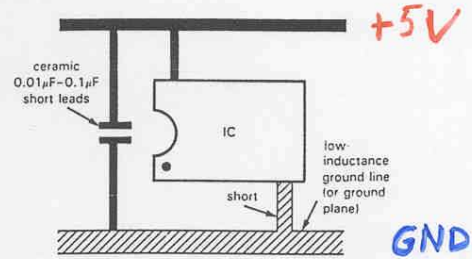


Figure 8.96. It's always a good idea to use robust low-inductance ground wiring, with liberal use of bypass capacitors.

sempre

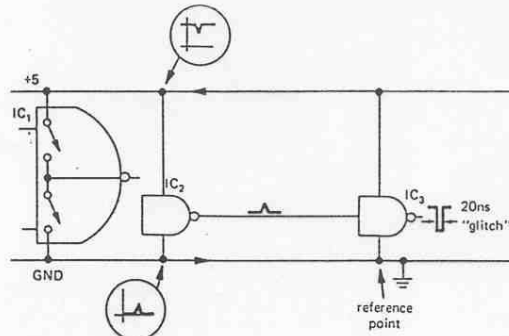


Figure 9.28. Ground current noise.

$$I = C \frac{dV}{dt}$$

$$V = L \frac{dI}{dt}$$

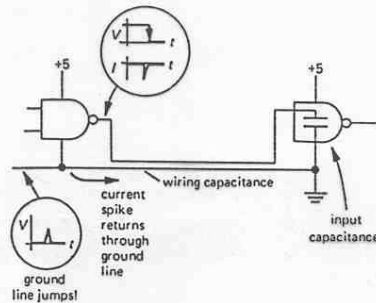


Figure 9.29. Capacitive-load ground current noise.