

## 25 Pulsed Alarm

□ This circuit is great for driving alarms because it pulses the bell or buzzer with a frequency you can select via R1 and R2. The pulsing action not only gets attention faster, but saves battery power as well, because the alarm can run longer. And

the beauty of this circuit is its low power consumption. In the off state, before the panic switch S1 is thrown, the circuit uses microwatts of power, so it can sit ready for months. That's one of the beauties of CMOS.

### PARTS LIST FOR PULSED ALARM

**C1**—0.68- $\mu$ F tantalum capacitor, 15 VDC

**D1, D2**—1N4001 diode

**D3**—small LED

**IC1**—4000 dual 3-input NOR gate

**Q1**—2N4401

**R1**—10,000,000-ohm,  $\frac{1}{2}$ -watt resistor

**R2**—1,000,000-ohm,  $\frac{1}{2}$ -watt resistor

**R3**—1,000-ohm,  $\frac{1}{2}$ -watt resistor

**R4**—10-ohm,  $\frac{1}{2}$ -watt resistor

**S1**—SPDT toggle switch

