Checking Unmarked Crystals

Q. I have a number of unmarked crystals. How can I determine what frequencies they are and whether or not they are good?

A. Shown here is a circuit using a conventional 10,000-ohms/volt (or better) de voltmeter, preferably a VTVM or TVM, and a reasonably well calibrated r-f signal generator Tune the signal generator until the voltmeter deflects sharply. At this point, the crystal is resonant with the generator frequency. You can check the overtone mode by changing the generator to the third, fifth, or higher harmonics. Some crystals perform better in the overtone mode. The diode used can be just about any signal type.

