# **COMPONENT PARTS**

## **TUNING DIODES**

The capacitance varies with voltage; so you can use voltage change to tune an RF circuit in place of using a (mechanical) variable capacitor. Current consumption is negligible

The following values are the nominal capacitance value at 45 volts; capacitance varies with voltage.

Part No. 86-1303 6.8pF type MV2101 Part No. 86-1309 33pF type MV2109

TUNING DIODE type MV209 has a capacitance of 450pF @ 1.6 volts, 5pF @ 12 volts Part No. 86-1300

> Silicon Rectifier Diodes 1N4001 series Industry standard Silicon Rectifier Diodes rated 1 ampere, axial lead. Used in thousands of practical circuits.

Part No. 86-1225 type 1N4001 50V PIV Part No. 86-1230 type 1N4004 400V PIV Part No. 86-1235 type 1N4007 1000V PIV

#### **ZENER DIODES Assortment**

ZENERs low cost voltage regulation. These are the most needed values; one each of five values per package. Included are: 1N4733 5.1V zener, 1N4735 6.2V, 1N4739 9.1V diode, 1N4740 10V diode, 1N4742 12V diode. DO-41 type case.

Part No. 86-1217 five piece Zener assortment

#### 1N4148/1N914 DIODES

**DIODES ten-pack.** Industry standard hi-speed silicon switching diodes called for in many circuits. Ten pieces per package

Part No. 86-1210 diodes ten pack.

#### **TL082 Dual JFET Input OpAmp TL084 Quad JFET Input OpAmp**

Both OPAmps feature Internal compensation, high impedance inputs, and the TL082 is pin compatible with older types such as MC1458, MC4558, LM358. Bandwidth=3.0 mHz. The TL084 is a Quad version of the TL082.





Part No. 86-1065 Dual OpAmp 8-pin Dip Part No. 86-1066 Quad OpAmp 14-pin Dip

#### **Epoxy Conformal Coated R.F. CHOKES**

Small chokes, slightly larger than resistors and marked with the same code as resistors to indicate value. Epoxy coating makes them nearly impervious to moisture, humidity etc...



#### Part No. 5alue current "Q" mA DC u6 min. 86-1422 1 920 45 86-1420 2.2 750 55 86-1421 4.7 620 70 86-1424 10 500 65 86-1423 22 410 50 86-1425 47 340 40 86-1426 100 275 30 86-1427 220 155 60 86-1428 470 126 60 86-1430 1000 100 100



#### LM741 OpAMP

The LM741 is the most used single OpAmp, featuring differential inputs. Has provisions for external compensation and offset nulling. This is a general purpose workhorse and a direct replacement for LM709, LM201, and MC1439. Slew rate .5V/us., 1.5MHz bandwidth.

Part No. 86-1062 OpAmp LM741



### MC33171 OpAmp

A single OpAmp optimized for single supply operation. The MC33171 has a lower power, wide bandwidth at 1.8MHz. Especially useful in low power circuits and modern PLL circuits; with provision for offset nulling if required. Wide supply range, from 3V to 44V operation.

Part No. 86-1063 OpAmp

#### **TL072 Dual JFET OpAmp TL074 Quad JFET OpAmp**

A low noise, high impedance Operational Amplifier with a 4 MHz bandwidth. A favorite in audio designs. Has internal compensation and features very low harmonic distortion. The TL074 is the Quad version of the TL072 with same features. One per package

Part No. 86-1067 Dual JFET OpAmp 8-pin Dip Part No. 86-1068 Quad JFET OpAmp 14-pin Dip

### LM 324 OpAMP

LM324 Operational Amplifier. Most useful for DC voltage gain blocks, active filters and low frequency oscillators. The LM324 is an industry standard low-power Quad Op AMP, featuring differential inputs, and is optimized for single-ended power supply, +3.0V to 32V DC operation. Bandwidth-Unity gain at 1 MHz. 14pin DIP.

Part No. 86-1060 OpAmp LM324

### NE555 TIMER

IC 8-pin TIMER. one of the most frequently used, industry standards. Timing from u/Seconds to hours. Can be used in astable or monostable modes. Adjustable duty cycle and frequency.

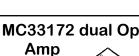
(See CMOS 555 elsewhere in this section.). Part No. 86-1069 NE555 Timer IC NE555

# **78XX Series** Voltage Regulators

These are the industry standard in voltage regulator IC's for power supplies with a fixed voltage. Rated at 1 amp (use heat sink), the last two digits indicate the voltage. Ripple rejection, load & line regulation are excellent.

Part No. 86-1137 type 7805 5V. regulator Part No. 86-1140 type 7812 12V. regulator





This is the Quad version of the MC33171 OpAmp and will operate from a single supply, which is probably its most

important feature. This is a good low power unit with a wide bandwidth. Use with 3V to 44V.

Part No. 86-1064 type MC33172 OpAmp



