# COMPONENT PARTS

### TRANSISTOR PACKAGES

Popular transistors with broad applications; these numbers are both used in place of many industry types and called for by these numbers as well. All transistors are exactly the industry number shown, not fallout tested, general replacements. Thousands of circuits call for these numbers. Note that packages contain anywhere from one to five pieces.

Philmore No.	Industry No.	Qty.per	TYPE	Outline Type
86-1604	2N3904	5	NPN	TO-92(92)
86-1606	2N3906	5	PNP	TO-92(92)
86-1622	PN2222A	5	NPN	TO-92(92)
86-1641	2N4401	5	NPN	TO-92(92)
86-1642	2N4403	5	PNP	TO-92(92)
86-1670	2N7000	3	FET n-channel	TO-92(92)
86-1673	BS170	3	FET n-channel	TO-92(97)
86-1650	2N2219A	1	NPN	TO-39







### LM358N OpAmp

A popular IC used in many circuits ranging from Pre-amps to voltage monitors. I.C. is standard 8-pin package, pins on tenth inch centers.



No. 86-1072......Pack of 2 LM358N

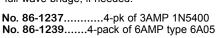
### 1 Amp Bridge Rectifier

A compact package containing the four diodes needed for a full-wave bridge rectifier circuit. Typical use is in power supplies for DC from an AC, 110V transformers. Rated 1 ampere at 50 volts.

No. 86-1280.....Package 1 bridge rectifier

#### **Power Rectifiers**

Commonly used for power supplies. These are four-packs so that the user can make a full-wave bridge, if needed.





# **MINIATURE POWER RELAYS High Capacity (10 Amp)**

This series of PC board mounting relays has high contact capacity (10 amps) in a very small package. They are completely sealed and protected from dust and solder flux. These relays can be used for flow

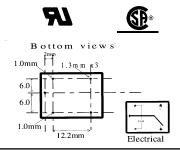
- •Power Consumption 0.36W •Pull-in Voltage 75% max.
- •Contact Capacity 10A 24V DC
- •Resistive Load 10A 120V AC
- •UL Recognized, CSA Certified



Part No.	Coil Voltage	Normal Current	Coil Resistance
	(V DC)	(mA)	(ohm)
86-103	3	120	25
86-105	5	73	70
86-106	6	60	100
86-109	9	40	225
86-112	12	30	400
86-118	18	20	900
86-124	24	15	1600

Part Number

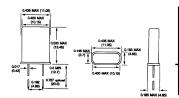
NOTE: Packaged Only, Not Available in Bulk.



# H.F. Amateur Radio Crystals

These precision ground Xtals are intended for use in home-brew circuits such as QRP transmitters and receivers. The frequencies have been selected to be usable by all licensed amateurs that have code privileges. The case used is the popular HC-49/u. All are series crystals with tolerance of+/- 25ppm at 25° Centigrade and 30ppm in a temperature range of -30° to +60° Centigrade. See chart for further information. Available one per package or in a kit of all six frequencies. (ESR=Equivalent Series Resistance) HC49/u case has the same dimensions as HC-18 case. Case height: 13.46mm, width: thickness: 4.65 and pins spacing is on 4.88 centers (pin diameter 0.48mm).





Philmore No.	Frequency	Band	Band	ESR
86-3200	3.71 mHz.	80 Meters	fundamental	50 ohms max.
86-3220	7.108 mHz.	40 Meters	fundamental	24 ohms max.
86-3244	21.115 mHz.	15 Meters	fundamental	18 ohms max.
86-3264	28.230 mHz.	10 Meters	fundamental	15 ohms max.
86-3265	28.230 mHz.	10 Meters	3rd Overtone	40 ohms max.

# **Ceramic Trimmer Capacitors**

Ceramic trimmer capacitors are used in all types of analog and digital electronic equipment. Typical uses may include setting time-out function, changing frequency, adjusting voltage and adjusting switching delay. We offer Vertical mount (screw on top of capacitor) which is encapaculated and color coded for easy identification.

3 per package



	07 COE
A	87-605
	87-610
	87-620
	87-630
	87-640
	87-650
	87-660
	87-670

**Features** A Variety of capacitance ranges up to 70pf Linear capacitance change excellent moisture-proof characteristics

Capacitance (pf)		Temp. Coeff.	Color
Min.	Max	(XPPM/°C)	Code
2.0	5.0	NP0	Blue
2.7	10	N470	White
4.2	20	N750	Red
5.5	30	N750	Green
6.8	40	N1200	Yellow
9.1	50	N1200	Brown
10.2	60	N1200	Brown
12.0	70	N1200	Blue

**Specifications** 

Working Voltage: 50V DC Maximum Voltage: 110V DC

Insulation Resistance: 100 Ohms @ 50V DC Operating Temperature: -30°C - +85°C

Q Factor: >500