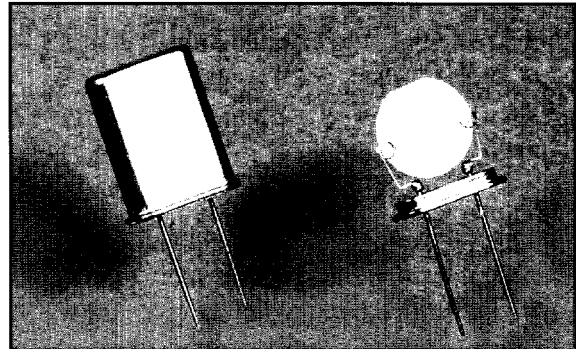


**Features:**

- Frequency Range: 1-25 MHz
- Thru Hole or Surface Mount
- Standard Frequencies Stocked by Local Distributors
- Rugged Resistance Weld Seal
- Low Cost: AT-Cut Resonators
- Non-Standard Frequencies or Tolerances also Available, Consult Factory



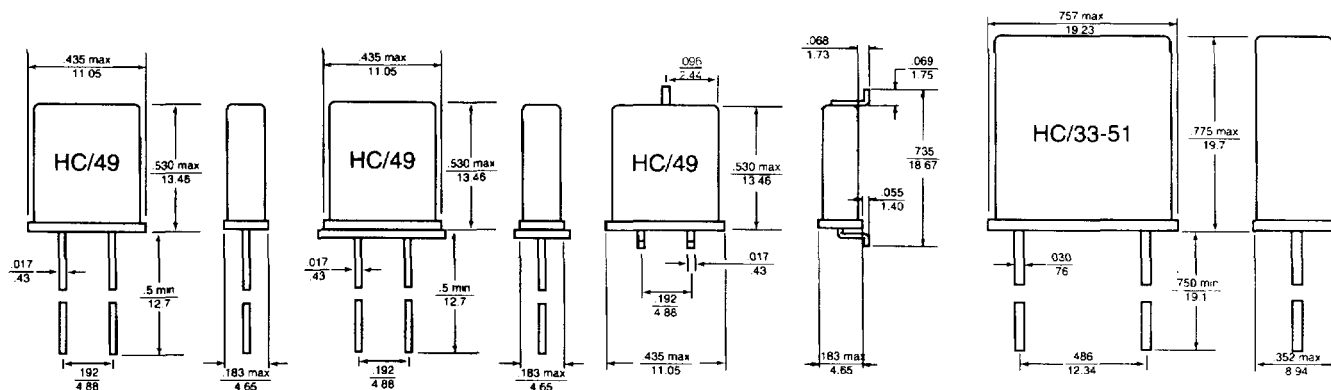
The MP Series are the right choice for Microprocessor, controller, or other standard crystal applications. These hermetic packages use Resistance Weld sealing for improved aging and reliability. Surface mount lead forming is available as well as insulating sleeve, top wire, bent leads, or tape/reel packaging.

**Electrical Specifications:**

<i>Parameter</i>	
Frequency Range	1.0 - 48 MHz
Calibration Tolerance	±0.005% (±50 ppm) at +25°C
Temperature Stability	±0.005% (±50 ppm) of +25°C reading
Operating Temperature Range	-0°C to +70°C
Operating Mode	Fundamental (or 3rd O.T. as applicable)
Drive Level	100 Microwatts
Shunt Capacitance	7 pF, Max
Aging	<10 ppm/Yr

**Standard Frequency Table:**

PART NUMBER	FREQUENCY (MHz)	MODEL	LOAD/SERIES	PART NUMBER	FREQUENCY (MHz)	MODEL	LOAD/SERIES	PART NUMBER	FREQUENCY (MHz)	MODEL	LOAD/SERIES
MP010	1.000000	HC/33-51	13pF	MP05A	5.000000	HC/49	20pF	MP120	12.000000	HC/49	SERIES
MP018	1.843200	HC/33-51	13pF	MP05B	5.000000	HC/49	SERIES	MP122	12.288800	HC/49	32pF
MP018S	1.843200	HC/49	13pF	MP050	5.068800	HC/49	SERIES	MP143	14.318180	HC/49	SERIES
MP020	2.000000	HC/33-51	20pF	MP060	6.000000	HC/49	20pF	MP147	14.745600	HC/49	SERIES
MP020S	2.000000	HC/49	20pF	MP061	6.144000	HC/49	20pF	MP150	15.000000	HC/49	SERIES
MP024	2.457600	HC/33-51	32pF	MP073	7.372800	HC/49	SERIES	MP160	16.000000	HC/49	SERIES
MP024S	2.457600	HC/49	32pF	MP080	8.000000	HC/49	SERIES	MP184	18.432000	HC/49	SERIES
MP036	3.579545	HC/33/51	18pF	MP080A	8.000000	HC/49	20pF	MP196	19.660800	HC/49	SERIES
MP036S	3.579545	HC/49	18pF	MP098	9.830400	HC/49	20pF	MP200	20.000000	HC/49	SERIES
MP037	3.686400	HC/49	20pF	MP100	10.000000	HC/49	SERIES	MP221	22.118400	HC/49	SERIES
MP040	4.000000	HC/49	20pF	MP101	10.000000	HC/49	30pF	MP240	24.000000	HC/49	SERIES
MP04A	4.000000	HC/49	SERIES	MP107	10.738635	HC/49	32pF	MP245	24.576000	HC/49	SERIES
MP041	4.194304	HC/49	12pF	MP110	11.000000	HC/49	18pF	MP250	25.000000	HC/49	SERIES
MP042	4.915200	HC/49	20pF	MP111	11.059200	HC/49	SERIES				



### Mechanical/Environmental Specifications

**Package Type:**

Metal cover; hermetic seal base, resistance weld seal

**Storage Temperature:**

-40 to +85°C

**Solderability:**

63Sn/37Pb solder, 5 sec. @ 245°C using RMA flux; 95% coverage, minimum

**Leak Test:**

<2x10<sup>-8</sup>cc-atm/sec

**Insulation Resistance:**

500 Mohm min @ 100v.

### Ordering Information

MP \_\_\_\_\_ \* \*\*

The first three digits come from "MP-Crystals — Standard Frequencies Table"

\*The next space is optional and may be an "A", "B", or "S" from the same Standard Frequency table.

\*\*The next blank is optional and may define:

- "TW" = hold down Top Wire
  - "SLV" = Insulating Sleeve
  - "SM" = Surface Mount lead form
  - "INS" = Insulating Spacer
  - "1" = (axial) Tape and Reel loading
- (see "Tape and Reel" page for tape dimensions.)

Custom frequencies specified upon request. Contact CTS Reeves for more information.