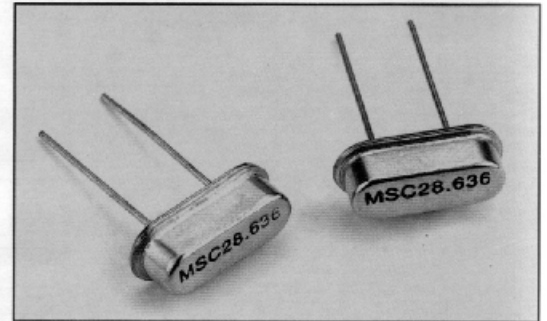


# QUARTZ CRYSTAL UNIT

## SERIES HC-49/US PACKAGE

### FEATURE

- Height 3.6mm, The volume is compact at about one-fourth of the former product (HC-49/U).
- A resistance weld completely sealed type.
- The frequency stability is good, the reliability is high.
- Multiple standard frequencies.
- Copes with high density mounting and is optimum for mass production.



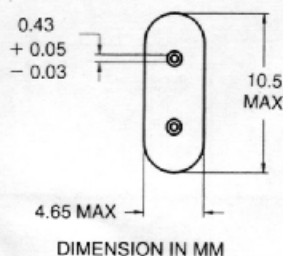
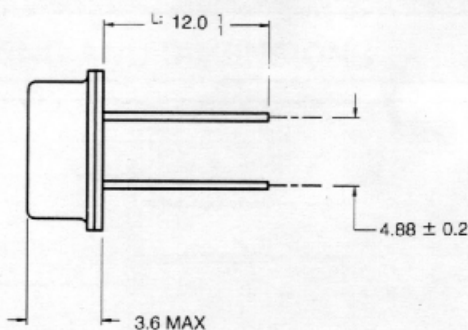
### ELECTRICAL SPECIFICATIONS

Frequency Range	3.579545MHz to 60MHz
Frequency Tolerance (at 25°C)	± 50ppm (Standard), or specify
Frequency Stability Over Operating Temperature Range	± 100ppm (Standard), or specify
Operating Temperature Range	-10°C to +60°C (Standard), -20°C to +70°C, -40°C to +85°C, or specify
Aging (at 25°C)	± 5ppm/year Maximum
Storage Temperature Range	-40°C to 85°C
Shunt Capacitance	7pF Maximum
Insulation Resistance	500 Megaohms Minimum at 100V <sub>DC</sub>
Drive Level	1 ~ 500 μ W
Load Capacitance	Series, 16pF, 20pF, 30pF, 32pF, or specify

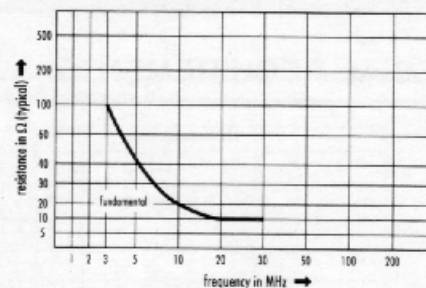
### EQUIVALENT SERIES RESISTANCE (ESR) AND MODE OF OPERATION (MODE)

Frequency Range	E.S.R (Ω)	Mode	Frequency Range	E.S.R (Ω)	Mode
3.200MHz~5.999MHz	90 Max.	Fundamental/AT	24.000MHz~40.320MHz	40 Max.	Fundamental/BT
6.000MHz~7.999MHz	50 Max.	Fundamental/AT	24.000MHz~29.999MHz	150 Max.	Third Overtone/AT
8.000MHz~15.999MHz	40 Max.	Fundamental/AT	30.000MHz~49.999MHz	100 Max.	Third Overtone/AT
16.000MHz~30.000MHz	20 Max.	Fundamental/AT	50.000MHz~70.000MHz	80 Max.	Third Overtone/AT

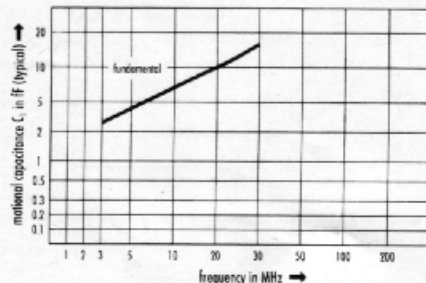
### MARKING AND DIMENSIONS



series resistance table



motional capacitance table



REMARK: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. PLEASE CONFIRM WITH OUR SALES ENGINEER.

# QUARTZ CRYSTAL UNIT

## ORDERING INFORMATION

Please specify the following items when placing orders.

### ■ GENERAL SPECIFICATIONS

Crystal Model	HC -49/US
Nominal Frequency	_____ MHz
Oscillation Mode	<input type="checkbox"/> Fundamental <input type="checkbox"/> 3rd <input type="checkbox"/> 5th <input type="checkbox"/> 7th
Frequency Tolerance (25°C)	<input type="checkbox"/> ± 50ppm <input type="checkbox"/> _____ ppm
Operating Temperature Range	<input type="checkbox"/> -10 ~ +60°C <input type="checkbox"/> -20 ~ +70°C <input type="checkbox"/> _____
Frequency Stability Over Operating Temp. Range	<input type="checkbox"/> ± 100ppm <input type="checkbox"/> _____ ppm
Load Capacitance	<input type="checkbox"/> Series <input type="checkbox"/> 16pF <input type="checkbox"/> 20pF <input type="checkbox"/> 30pF <input type="checkbox"/> 32pF <input type="checkbox"/> _____ pF
Equivalent Series Resistance (ESR)	_____ Ω Max.
Drive Level	<input type="checkbox"/> 100 μ W <input type="checkbox"/> _____ μ W
Shunt Capacitance (C0)	<input type="checkbox"/> 7pF Max. <input type="checkbox"/> _____
Aging	<input type="checkbox"/> 5ppm/year <input type="checkbox"/> _____
Spurious Response	<input type="checkbox"/> Not Specify <input type="checkbox"/> _____
Test Equipment	<input type="checkbox"/> Saunders 250A <input type="checkbox"/> _____
Marking	<input type="checkbox"/> MSC Standard <input type="checkbox"/> _____
Application	