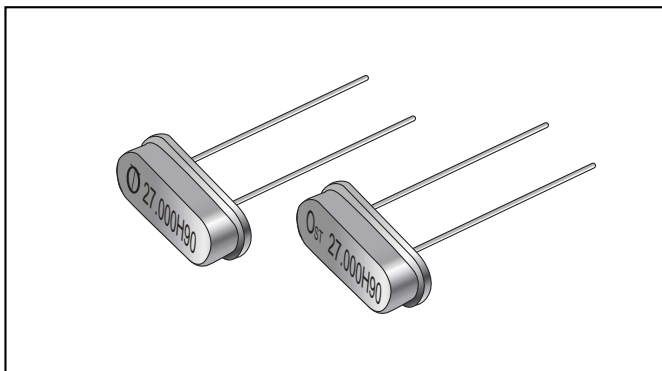


RESISTANCE WELDED HOLDER HC-49S PACKAGE


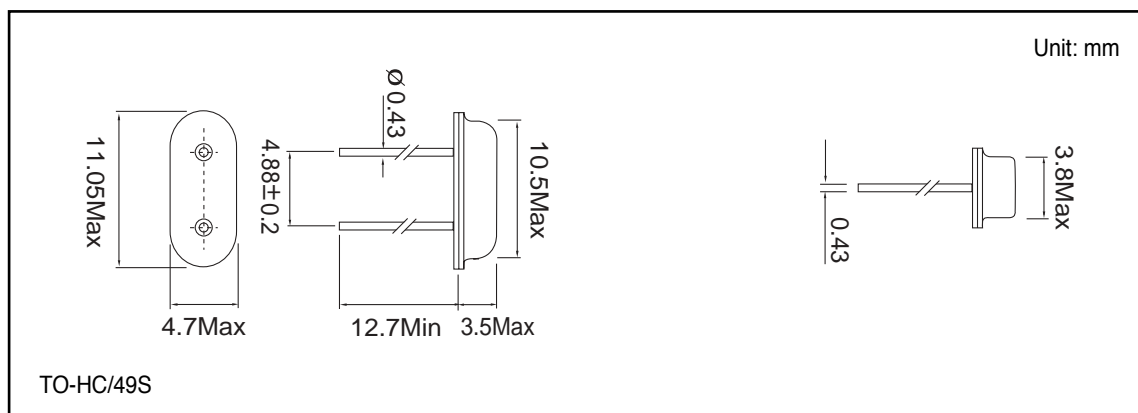
- Wide range of application
- High performance miniature crystal unit
- Excellent vibration resistance

ELECTRICAL SPECIFICATIONS

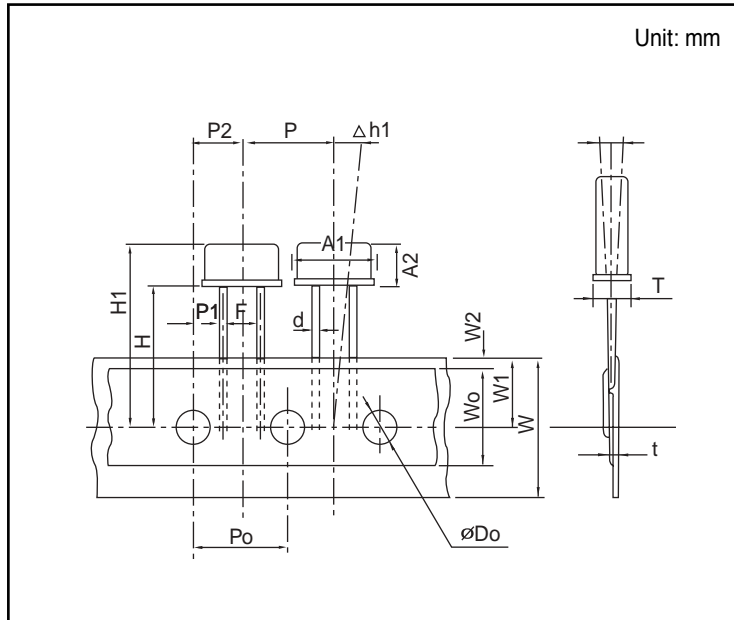
Frequency Range	3.200 MHz ~ 70.000 MHz
Frequency Tolerance at 25°C	± 30 ppm or ± 50 ppm (please specify)
Frequency Stability Over Operating Temperature Range	± 30 ppm or ± 50 ppm (please specify)
Operating Temperature Range	- 10°C ~ +60°C
Storage Temperature Range	- 40°C ~ +85°C
Shunt Capacitance	7pF Max
Load Capacitance (CL)	Customer Assign
Insulation Resistance	500 Megaohms Minimum at 100V _{DC}
Drive Level	100 μW Max
Aging (at 25°C)	± 5 ppm/year Max

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

Frequency Range	Max ESR (Ω)	Mode	Frequency Range	Max ESR (Ω)	Mode
3.200 MHz ~ 3.999 MHz	150 Max	Fundamental/AT	9.000 MHz ~ 9.999 MHz	60 Max	Fundamental/AT
4.000 MHz ~ 4.499 MHz	150 Max	Fundamental/AT	10.000 MHz ~ 12.999 MHz	50 Max	Fundamental/AT
4.500 MHz ~ 4.999 MHz	120 Max	Fundamental/AT	13.000 MHz ~ 19.999 MHz	50 Max	Fundamental/AT
5.000 MHz ~ 5.999 MHz	120 Max	Fundamental/AT	20.000 MHz ~ 30.000 MHz	50 Max	Fundamental/AT
6.000 MHz ~ 6.999 MHz	100 Max	Fundamental/AT	30.000 MHz ~ 66.000 MHz	80 Max	3rd Overtion/AT
7.000 MHz ~ 7.999 MHz	90 Max	Fundamental/AT	27.000 MHz ~ 40.000 MHz	50 Max	Fundamental/AT
8.000 MHz ~ 8.999 MHz	80 Max	Fundamental/AT	24.000 MHz ~ 30.000 MHz	60 Max	Fundamental/BT

DIMENSIONS


TAPING FOR TO-HC/49U & HC/49S



Description	Symbol	Dimensions
Outside Diameter of Part	A1 x A2	11.1 x 3.5
Thickness of Part	T	5.0 Max
Lead Wire Diameter	d	∅ 0.43 ^{+0.05} _{-0.02}
Interval Spacing of Part	P	12.7 ± 1.0
Pitch of Leading Hole	Po	12.7 ± 1.0
Tolerance of Leading Hole	P1	3.85 ± 0.7
	P2	6.35 ± 1.0
Lead Pitch	F	5.0 ^{+0.5} _{-0.2}
Inclination	△h	0 ± 1.0
Tape Width	W	18.2 ± 0.2
Adhesive Tape Width	W0	13.0 ^{+0.8} _{-0.2}
Tolerance of Leading Hole (Vertical)	W1	9.0 ± 0.5
Tolerance of Cover Tape	W2	∅ 2.0 Max
Bottom Surface Position of Part	H	20.5 ± 0.5
Top Surface Position of Part	H1	24.0 Max
Hole Diameter	Do	∅ 4.0 ± 0.2
Tape Thickness	t	0.7 ± 0.1
Inclination	△h1	0 ± 1.0

Unit: mm