

- Low-cost, industry-standard crystal unit formed for SMD
- Available with close tolerances
- Frequency range 1.0MHz to 200MHz
- Specifications fully customisable



### DESCRIPTION

49SMD crystals are long-established, industry-standard HC49 crystals with formed leads and a clip to facilitate surface mounting. The crystals provide a high quality but very low cost source of system clock frequency 49SMD crystals may be produced to very close tolerances.

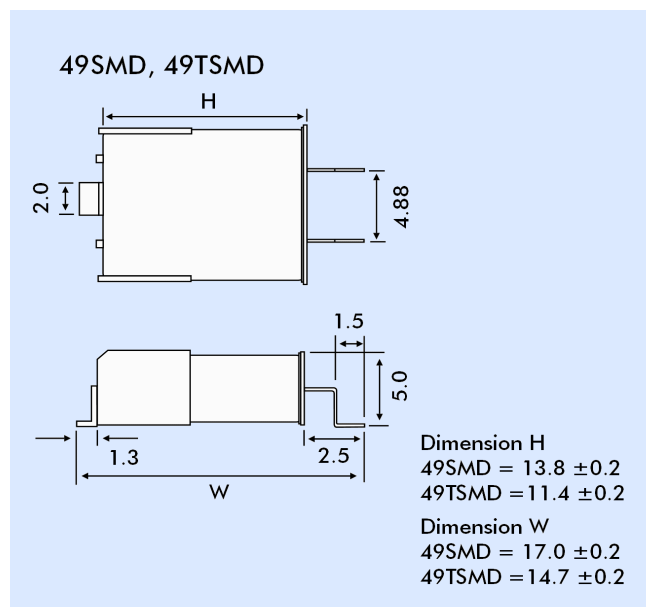
### SPECIFICATION

Frequency Range:	1.0MHz to 200MHz
Oscillation Mode:	See table
Calibration Tolerance at 25°C	
SL-Cut (<1.3MHz):	from ±50ppm
AT-Cut (>1.3MHz):	from ±3ppm
Frequency Stability over temperature	
SL-Cut (<1.3MHz):	from ±100ppm -10° to +60°C
AT-Cut (>1.3MHz):	from ±3ppm 0° to +50°C (see table)
Shunt Capacitance (C0):	4pF typical, 7pF maximum
Load Capacitance (CL):	Series or from 8pF to 32pF (Customer specified CL)
Ageing:	±3ppm maximum, 1st year, ±1ppm per year thereafter.
Drive Level:	100µW typical., 500µW max.
Crystal Holder:	Resistance-weld hermetic seal
Supply format:	Bulk pack or 'Ammo Pak' tape.

### ESR and OSCILLATION MODE

Frequency Range MHz	Crystal Cut Osc. Mode	ESR Ω Max.
1.0 ~ 1.3	SL Fund.	5000
2.01 ~ 3.0	AT Fund.	400
3.01 ~ 3.2	AT Fund.	200
3.21 ~ 3.5	AT Fund.	150
3.51 ~ 3.9	AT Fund.	120
3.91 ~ 5.0	AT Fund.	100
5.01 ~ 7.0	AT Fund.	50
7.01 ~ 10.0	AT Fund.	35
10.0 ~ 30.0	AT Fund.	25
30.1 ~ 45.0	AT Fund.	20
24.0 ~ 100	AT 3rd OT	40
80.0 ~ 160	At 5th OT	70
110 ~ 250	AT 7th OT	120

### OUTLINE & DIMENSIONS



### STABILITY OVER TEMPERATURE RANGE (AT-CUT CRYSTALS)

Temp. Range °C	Stability ppm						
	±7.5 ±10	±15	±20	±30	±50	±100	
0~+50	✓	✓	✓	✓	✓	✓	✓
-10~+60	✓	✓	✓	✓	✓	✓	✓
-20~+70	X	✓	✓	✓	✓	✓	✓
-30~+80	X	X	X	✓	✓	✓	✓
-40~+85	X	X	X	X	✓	✓	✓
-55~+125	X	X	X	X	X	✓	✓

(✓ = Available, X = Not available)

### PART NUMBER FORMAT

