



Features:

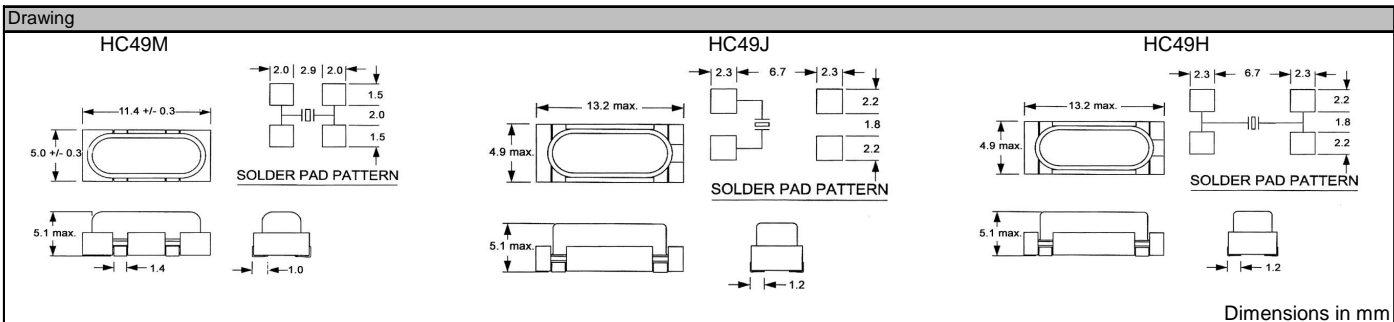
- High reliability
- Available in extended temperature range
- Excellent for automotive applications



HC49M
HC49J
HC49H

Specifications				
		Symbol	HC49M / HC49J / HC 49 H	Remarks
Frequency range		f	3.500MHz ~ 40.000MHz	Fundamental mode
			30.000MHz ~ 80.000MHz	Overtone mode
Frequency tolerance, Ta=25°C		f/f	±10ppm ~ ±50ppm	Please specify
Load capacitance		CL	10pF ~ 50pF	Please specify
Temperature tolerance		f/f	±10ppm ~ ±100ppm	Please specify
Temperature range	Storage temperature	T _{STG}	-40°C ~ +125°C	
	Operating temperature	T _{OPR}	-40°C ~ +125°C	Others are offered
Drive level	Maximum drive level	M _{DL}	1000µW	
	Recommended drive level	R _{DL}	10µW ~ 100µW	
Series resistance		R ₁	As per table	25°C ±3°C
Shunt capacitance		C ₀	7pF	Max
Insulation resistance		I _R	500M Ohm	Min
Aging		f _A	±5ppm/Year	Max

Resistance of series resonance (ESR)					
Frequency (MHz)	Mode	Ohm max	Frequency (MHz)	Mode	Ohm max
3.5 ≤ f < 4.5	Fundamental	120	15 ≤ f < 18	Fundamental	30
4.5 ≤ f < 6.0	Fundamental	90	18 ≤ f < 33	Fundamental	25
6.0 ≤ f < 8.0	Fundamental	70	30 ≤ f < 35	3rdO.T	100
8.0 ≤ f < 10	Fundamental	60	35 ≤ f < 40	3rdO.T	80
10 ≤ f < 12	Fundamental	50	40 ≤ f < 80	3rdO.T	70
12 ≤ f < 15	Fundamental	40			



Order key								
Q	- 20.000000M	- HC49M	- F	- 30	- 50	- D	- 30	- TR
Part	Frequency	Package	Mode of oscillation	Frequency tolerance	Temperature tolerance	Temperature range	Load capacitance	Option
Q=Quartz	M=MHz	HC49M HC49J HC49H	F=fund. 3=3.OT	±ppm (25°C)	±ppm (Temp. Range)	A= 0°C ~ +70°C B= -10°C ~ +60°C C= -10°C ~ +70°C D= -20°C ~ +70°C E= -40°C ~ +85°C F= -40°C ~ +105°C G= -40°C ~ +125°C * H= -20°C ~ +80°C I = -10°C ~ +50°C	pF SR=series	TR=Tape and reel X=Special options