

LOW PROFILE SMD TYPE CRYSTAL UNITS

HC-49SM Series

Electrical Specifications

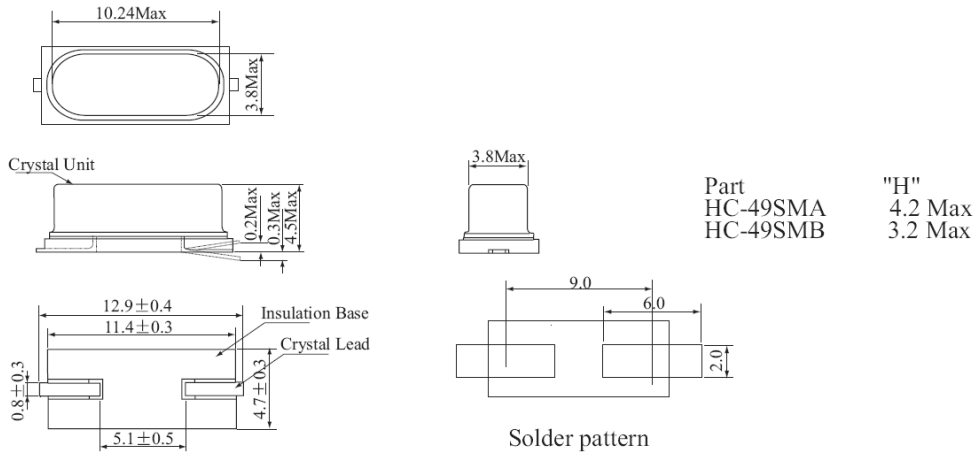
Parameter	Symb	Condition	Min	Typ	Max	Units
Frequency Range	F ₀	49SMA	3.200		66.000	MHz
		49SMB	8.000		66.000	MHz
Frequency Tolerance	ΔF/ F ₀	AT 25°C	±10	±30	±50	ppm
Temperature Stability	TC	REF TO 25°C	±10	±30	±50	ppm
Operating Temperature Range	T _{OPR}		-20*		+70*	°C
Storage Temperature Range	T _{STG}		-40		+85	°C
Shunt Capacitance	C ₀				7	pF
Load Capacitance	CL	Customer Specified	10		Series	pF
Insulator Resistance	IR	100V _{DC}	500			MΩ
Drive Level	DL			100	500	μW
Aging	F _a	AT 25°C, per year	-5.0		+5.0	ppm

*Operating temperature range: BT cut can only do 0°C to 50°C

Equivalent Series Resistance(ESR) and Mode of Vibration(Mode)

Frequency Range(MHz)	Max ESR(Ω)	Mode	Frequency Range(MHz)	Max ESR(Ω)	Mode
3.200 to 4.499	150	Fundamental/AT	9.000 to 9.999	60	Fundamental/AT
4.500 to 5.999	120	Fundamental/AT	10.000 to 12.999	50	Fundamental/AT
6.000 to 6.999	100	Fundamental/AT	13.000 to 30.000	40	Fundamental/AT
7.000 to 7.999	90	Fundamental/AT	30.000 to 66.000	80	3 rd Overtone
8.000 to 8.999	80	Fundamental/AT	27.000 to 40.000	40	Fundamental/BT

Mechanical Dimensions(mm)



HC49SM-A20C18-25M000

Package	Frequency Stability	Frequency Tolerance	Operating temperature Range	Load Capacitance	Nominal Frequency (In MHz)
HC49SM	A=±10ppm	10=±10ppm	A=0 to +70°C	00=series	25M000=25.000MHz
HC49SX	B=±20ppm	20=±20ppm	B=-20 to +70°C	10=10pF	32K768=32.768KHz
CX32	C=±30ppm	30=±30ppm	C=-40 to +85°C	18=18pF	
CX42	D=±50ppm	50=±50ppm	D=-40 to +105°C	32=32pF	
CX5F	E=±100ppm	00=±100ppm			
CX5S					
CX6F					
CX6S					
CX75					
CX84					