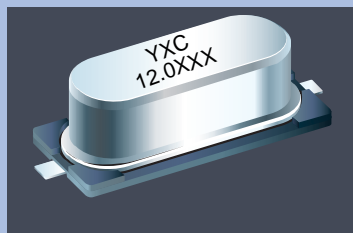


# Metal Can Type Crystals

## HC-49SMD Series



### Features

- Surface mount type crystal units.
- A great number of standard frequencies.
- High frequency pullability and low equivalent series resistance.
- Highly mass production capability.
- The best choice of PC, STB, LCDM, and Cable Modem.
- RoHS Compliant / Pb Free.

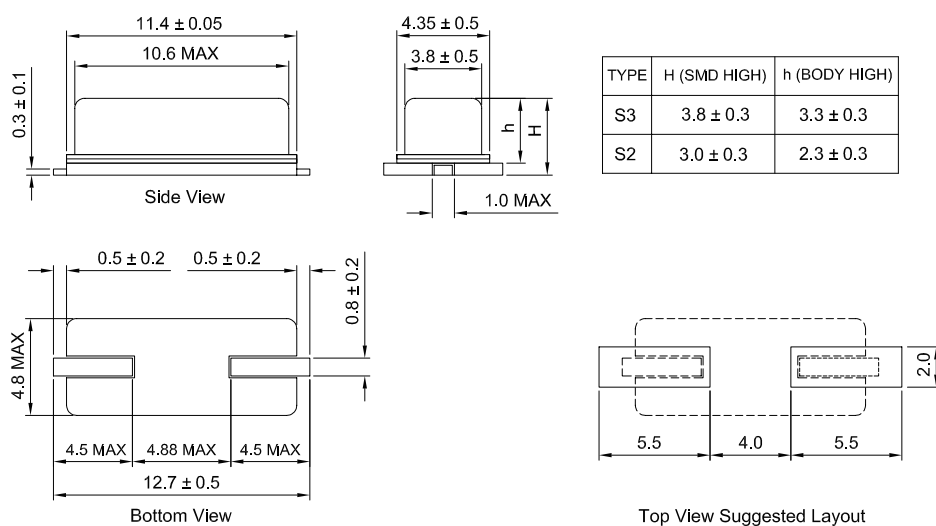
### Electrical Specifications

Item / Type	HC-49SMD
Frequency Range	3.579545 ~ 64MHz
Frequency Tolerance (at 25 °C)	± 20 ppm, or specify
Frequency Stability Over Operating Temperature Range	±10 ppm, ± 20 ppm, or specify
Operating Temperature Range	- 20 ~ +70 °C, or specify
Shunt Capacitance (C0)	7 pF Max.
Drive Level	1 ~ 500 μW (100 μW typical)
Load Capacitance	16 pF, 20 pF, 30 pF, 32 pF, specify
Aging (at 25 °C)	± 5 ppm / year Max.
Storage Temperature Range	-20 ~ +70 °C, or specify

### Equivalent Series Resistance(ESR)

Fundamental		3rd Overtone	
3.579545 ~ 4 MHz	150 Ω Max.	20 ~ 25 MHz	100 Ω Max.
4 ~ 5 MHz	120 Ω Max.	25 ~ 64 MHz	80 Ω Max.
5 ~ 6 MHz	100 Ω Max.		
6 ~ 7 MHz	80 Ω Max.		
7 ~10MHz	60 Ω Max.		
10 ~ 27MHz	40 Ω Max.		

### Dimensions



Units: mm

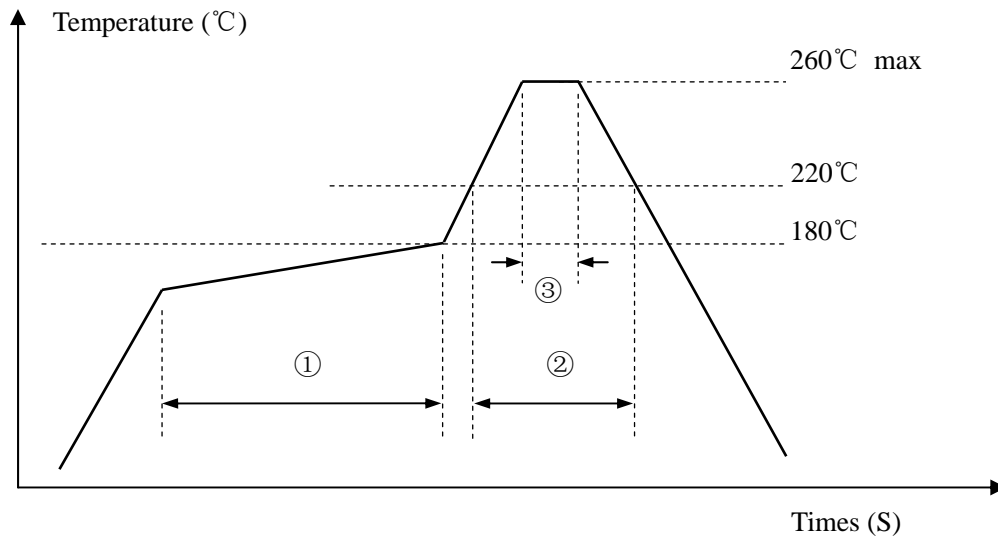
★ PART NUMBER GUIDE 部件号示例 e.g. X49SM16MSB2SC

HC-49SMD=12.7×5.0 SMD SEAM TYPE

Quartz Crystal Resonator	Dimensions	Frequency (Hz)	Load Capacitance (Pf)	Frequency Stability Overall (ppm)	Pin	Material	Operating Temp. Range
X	49SM	16M	S	B	2	S	C

Definition	Description
Operating Temperature Range	C: -20~+70°C
	I: -40~+85°C
	D: Customer specified

★ REFLOW SOLDERING PROFILE 回流焊特性



Pb free reflow A	①	Preheat	160~180°C	120sec. max
	②	Primary heat	220°C	60sec. max
	③	Peak	260°C	10sec. max.