



### ■ Features

- > Crystal resonators offering excellent frequency stability for use in microprocessors and other standard clocks.
- > The HC-49/SMD HC-49/SSMD is also suitable for visual applications.



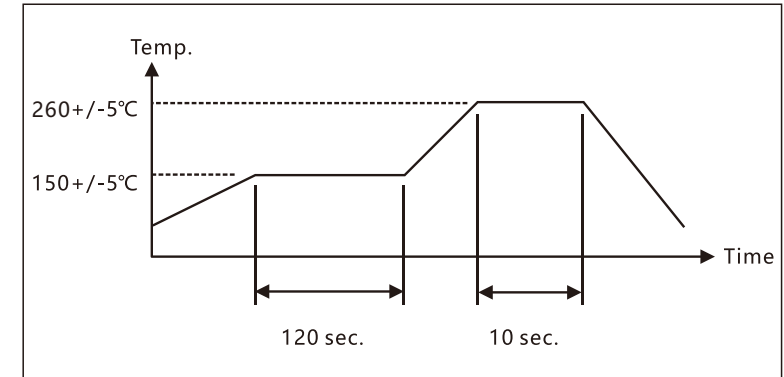
### ■ Electrical Specifications

Item / Type	HC-49/SMD
Frequency Range	3.2 ~ 70 MHz
Frequency Tolerance (at 25 °C)	± 20 ppm, or specify
Frequency Stability Over Operating Temperature Range	± 20 ppm, or specify
Operating Temperature Range	-20 ~ +70°C, -40 ~ +85°C or specify
Shunt Capacitance (C0)	7 pF Max.
Drive Level	1 ~ 500 μW (100 μW typical)
Load Capacitance	Series, 16 pF, 20 pF or specify
Aging (at 25 °C)	± 3 ppm / year Max.
Storage Temperature Range	-55 ~ +150 °C

### ■ Equivalent Series Resistance (ESR)

Fundamental		3rd Overtone	
3.2 ~ 3.686 MHz	200 Ω Max.	27 ~ 30 MHz	100 Ω Max.
3.686 ~ 5 MHz	150 Ω Max.	30 ~ 50 MHz	80 Ω Max.
5 ~ 10 MHz	80 Ω Max.	50 ~ 70 MHz	60 Ω Max.
10 ~ 14 MHz	40 Ω Max.		
14 ~ 30 MHz	30 Ω Max.		

### ■ Reflow Condition



### ■ Dimensions

