

SMD QUARTZ CRYSTAL

SERIES HC-49/US-3SMD

FEATURES

- + 4 pad SMD package
- + Extended temperature range to -40/+85°C available
- + Excellent clock signal generator for CPU's
- + Compatible to plastic packaged crystals



GENERAL DATA

ROHS COMPLIANT

PARAMETERS	PRODUCT FEATURES AND CONDITIONS
SMD-CRYSTAL SERIES	HC-49/US-3SMD
NUMBER OF SOLDER PINS	4 (Pads 1 + 4 connected to the quartz / Pads 2 + 3 connected to GND)
FREQUENCY RANGE	3.5 ~ 40.0 MHz Fundamental 30.0~ 80.0 MHz 3rd Overtone
FREQUENCY TOLERANCES AT 25°C	±10 ppm ~ ±30 ppm
LOAD CAPACITANCE (C _L)	18 pF or customer specify
WORKING TEMPERATURE RANGES	-20/+70°C ~ -40/+85°C
SHUNT CAPACITANCE (C ₀)	7 pF max.
DRIVE LEVEL	100 µW standard (1 mW max. available on request)
AGING	±5 ppm per year max.
INSULATION RESISTANCE	>500 MΩ DC/100V ±10%
STORAGE TEMPERATURE	-55°/+125°C
DELIVERY FORM	Tape and Reel (1.000 pcs per reel)

PLEASE DO NOT USE THIS CRYSTAL FOR NEW DESIGNS!
PLEASE ASK US TO RECOMMEND A CRYSTAL FOR NEW DESIGNS!

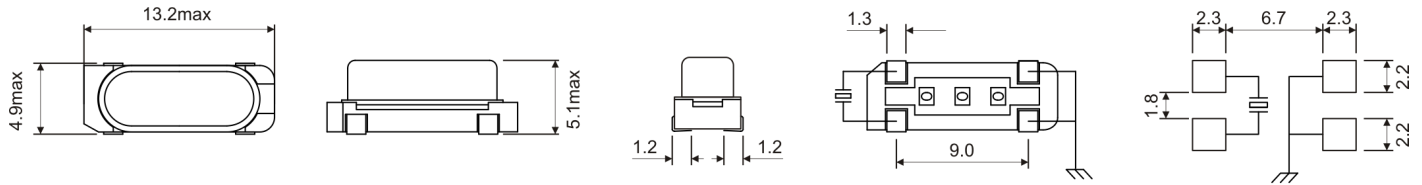
FREQUENCY STABILITY VS. TEMPERATURE

	±10ppm	±15ppm	±20ppm	±30ppm
-20°/+70°C	+	+	+	+
-40°/+85°C			+	+

Note:

1. The reference temperature for all specified values and tests is +25°C
2. Do not use cleaning baths operating at ultrasonic frequencies or ultrasonic welding processes.

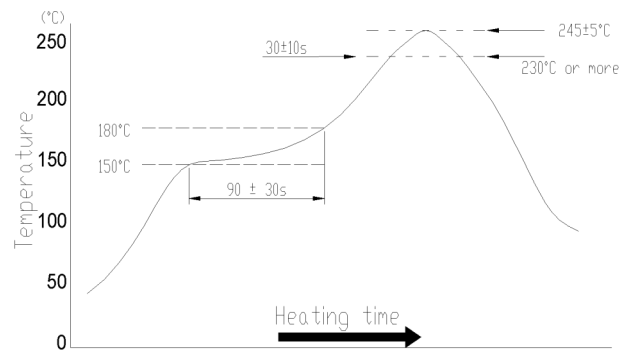
DIMENSIONS OF HC-49/US-3SMD



Unit:mm

REFLOW SOLDER PROFILE

Peak: 245±5°C Soldering zone: 230°C or more, 30±10s. Pre-heating zone 1: 150~180°C, 90±30s



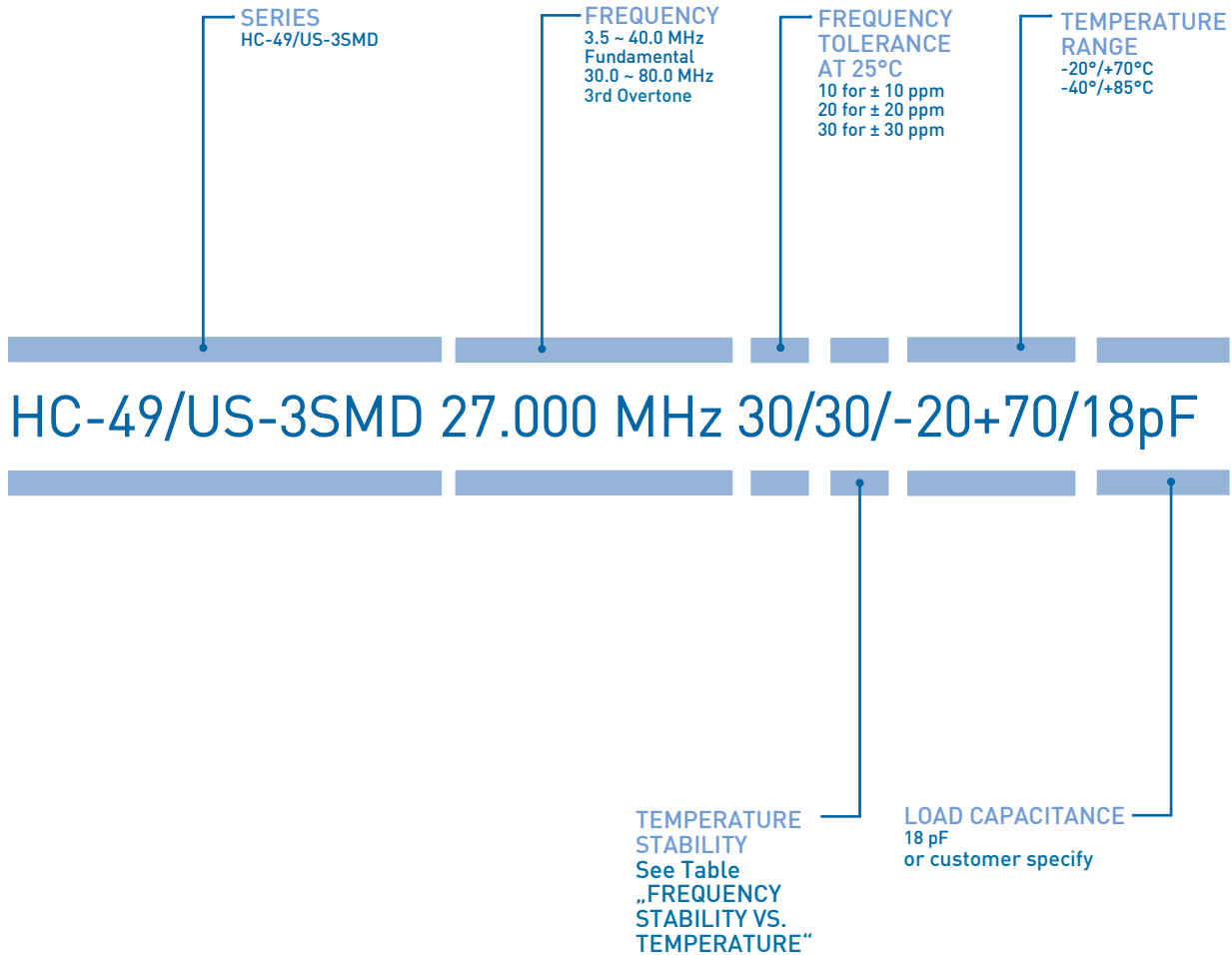
Note:

- HC-49/US-3SMD series crystal is recommended to go through 1 time reflow soldering only. We will not guarantee product quality for 2 times reflow soldering or the board is upside-down when go through reflow soldering.

RESONANCE RESISTANCE

FREQUENCY IN MHz	VIBRATION MODE	ESR MAX. IN Ω
3.5 < ~ ≤ 4.5 MHz	Fund.	120
4.5 < ~ ≤ 6 MHz	Fund.	90
6 < ~ ≤ 8 MHz	Fund.	70
8 < ~ ≤ 12 MHz	Fund.	60
12 < ~ ≤ 15 MHz	Fund.	40
15 < ~ ≤ 18 MHz	Fund.	30
18 < ~ ≤ 33 MHz	Fund.	25
30 < ~ ≤ 35 MHz	3rd OT	100
35 < ~ ≤ 40 MHz	3rd OT	80
40 < ~ ≤ 80 MHz	3rd OT	70

ORDERING INFORMATION



EXAMPLE: HC-49/US-3SMD 27.000 MHz 30/30/-20+70/18pF
PLEASE INDICATE YOUR REQUIRED PARAMETERS



PREMIUM QUALITY BY PETERMANN-TECHNIK



OUR COMPANY IS CERTIFIED ACCORDING TO ISO 9001:2015 AND 14001:2015

THIS IS FOR YOU TO ENSURE THAT THE PRINCIPLES OF QUALITY MANAGEMENT ARE FULLY IMPLEMENTED IN OUR QUALITY MANAGEMENT SYSTEM AND QUALITY CONTROL METHODS ALSO DOMINATE OUR QUALITY STANDARDS.