



## MHz RANGE CRYSTAL UNIT

### ULTRA MINIATURE SIZE LOW PROFILE SMD

# FA-20H

- Nominal frequency range : 16 MHz to 40 MHz , 48 MHz
- Thickness : 0.55 mm Max.
- Overtone order : Fundamental
- Applications : Mobile phone, Bluetooth, W-LAN  
ISM band radio, Clock for MPU



Actual size



### Specifications (characteristics)

Item	Symbol	Specifications		Remarks
		For RF Reference	For Clock	
Nominal frequency range	f	16.000 MHz to 40.000 MHz , 48MHz		Fundamental Please contact us for inquiries regarding the available frequencies.
Storage temperature range	T_stg	-40 °C to +125 °C		Store as bare product after unpacking.
Operating temperature range	T_use	-40 °C to +85 °C		
Level of drive	DL	100 μW Max.		
Frequency tolerance (standard)	f_tol	$\pm 10 \times 10^{-6}$	$\pm 30 \times 10^{-6}$	+25 °C For the out of standard specifications, please contact us for inquiries.
Frequency versus temperature characteristics (standard)	f_tem	$\pm 10 \times 10^{-6} *1$	$\pm 30 \times 10^{-6}$	-20 °C to +75 °C For the out of standard specifications, please contact us for inquiries.
Load capacitance	CL	6 pF to ∞ (standard: 9 pF, 10 pF, 12 pF, 16 pF, ∞)		Please specify.
Motional resistance (ESR)	R <sub>1</sub>	As per below table		-20 °C to +75 °C
Frequency aging	f_age	$\pm 1 \times 10^{-6}$ / year Max.		+25 °C, First year

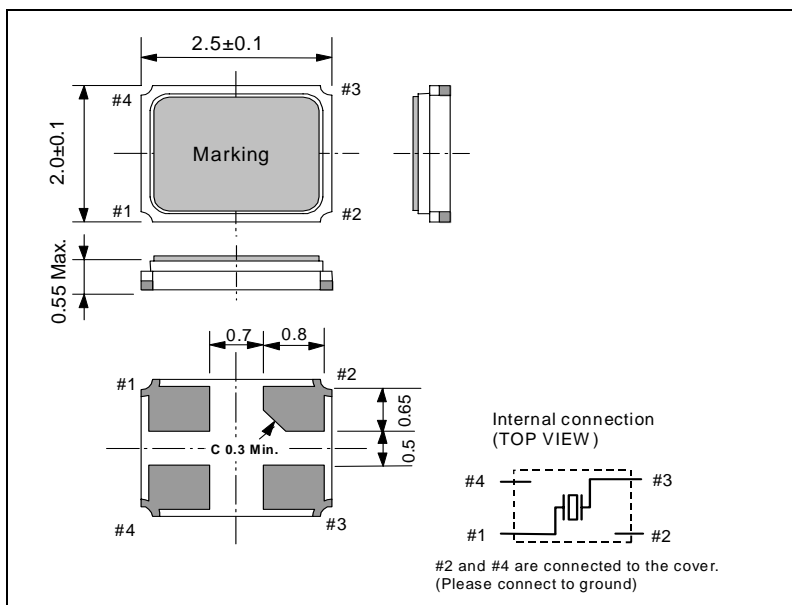
\*1 Less than 20MHz;  $\pm 12 \times 10^{-6}$

### Motional resistance (ESR)

Frequency	Motional resistance
16.0 MHz ≤ f < 25.0 MHz	80 Ω Max.
25.0 MHz ≤ f < 30.0 MHz	60 Ω Max.
30.0 MHz ≤ f < 35.0 MHz	50 Ω Max.
35.0 MHz ≤ f ≤ 40.0 MHz	40 Ω Max.
48.0 MHz	40 Ω Max.

### External dimensions

(Unit:mm)



### Footprint (Recommended)

(Unit:mm)

