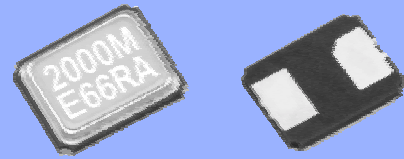


MHz RANGE CRYSTAL UNIT FOR AUTOMOTIVE APPLICATIONS



FA-23A

- Frequency range : 12 MHz to 54 MHz
- Thickness : 0.8 mm Max.
- Overtone order : Fundamental
- Applications : Accessories and ECU sub clock



Actual size



Specifications (characteristics)

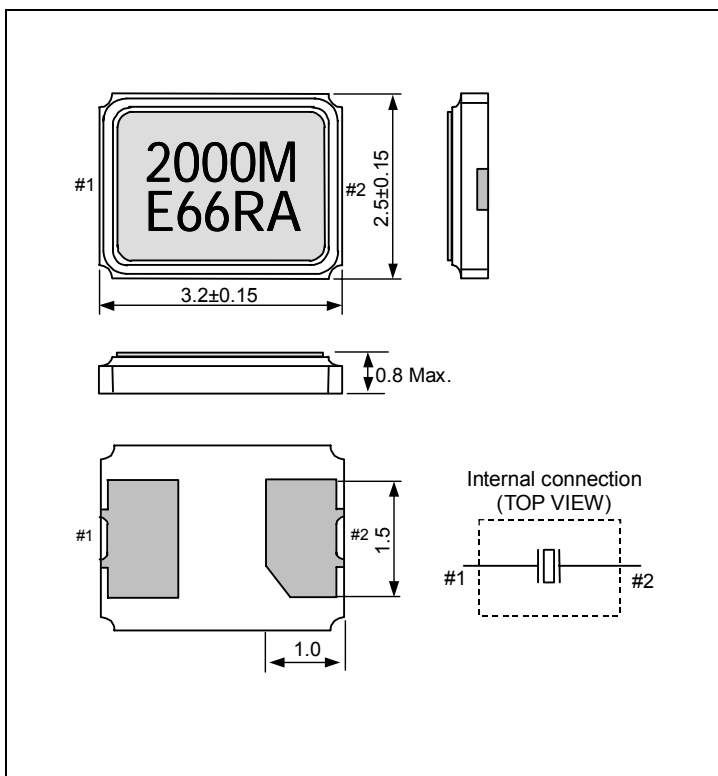
Item	Symbol	Specifications	Remarks	
Nominal frequency range	f	12 MHz to 54 MHz	Fundamental	
Temperature range	Storage temperature	T_stg	-40 °C to +125 °C	Store as bare product after unpacking
	Operating temperature	T_use	-40 °C to +125 °C	
Level of drive	DL	100 μW Max.		
Frequency tolerance (standard)	f_tol	$\pm 10 \times 10^{-6}$	+25 °C	
Frequency versus temperature characteristics (standard)	f_tem	$\pm 20 \times 10^{-6}$	-40 °C to +85 °C	
		$\pm 50 \times 10^{-6}$	-40 °C to +125 °C	
Load capacitance	CL	7 pF to ∞ (standard: 9 pF, 12 pF, 16 pF, ∞)	Please specify	
Motional resistance (ESR)	R ₁	As per below table		
Frequency aging	f_age	$\pm 5 \times 10^{-6}$ / year Max.	+25 °C, First year	

Motional resistance (ESR)

Frequency	Motional resistance
12.0 MHz ≤ f < 16.0 MHz	100 Ω Max.
16.0 MHz ≤ f < 20.0 MHz	80 Ω Max.
20.0 MHz ≤ f < 27.0 MHz	60 Ω Max.
27.0 MHz ≤ f ≤ 54.0 MHz	40 Ω Max.

External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)

