

KHz RANGE CRYSTAL UNIT

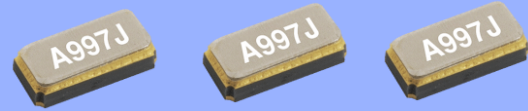
For Automotive



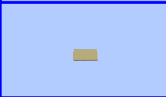
Product Number (please contact us)
X1A000091xxx00

FC-13A

- Frequency range : 32.768 kHz
- External dimensions : 3.2 × 1.5 × 0.9 mm
- Overtone order : Fundamental
- Applications : Car audio, ECU sub clock,
Car navigation system, Clock
- Conforms to AEC-Q200



Actual size



Specifications (characteristics)

Item	Symbol	Specifications	Conditions / Remarks
Nominal frequency range	f_nom	32.768 kHz	
Storage temperature	T_stg	-55 °C to +125 °C	Storage as single product.
Operating temperature	T_use	-40 °C to +125 °C	
Level of drive	DL	0.5 μW (1.0 μW Max.)	Please contact us if you require 1.0μW Max.
Frequency tolerance (standard)	f_tol	±20 × 10 ⁻⁶ , ±30 × 10 ⁻⁶ , ±50 × 10 ⁻⁶	+25 °C, DL=0.1 μW
Turnover temperature	Ti	+25 °C ±5 °C	
Parabolic coefficient	B	-0.04 × 10 ⁻⁶ / °C ² Max.	
Load capacitance	CL	9 pF, 12.5 pF	Please specify
Motional resistance (ESR)	R ₁	70 kΩ Max.	
Motional capacitance	C ₁	3.2 fF Typ.	
Shunt capacitance	C ₀	0.9 pF Typ.	
Frequency aging	f_age	±3 × 10 ⁻⁶ / year Max.	+25 °C, First year

Product name FC-13A 32.768000kHz 12.5 +20.0-20.0

(Standard form)

①

②

③

④

①Model

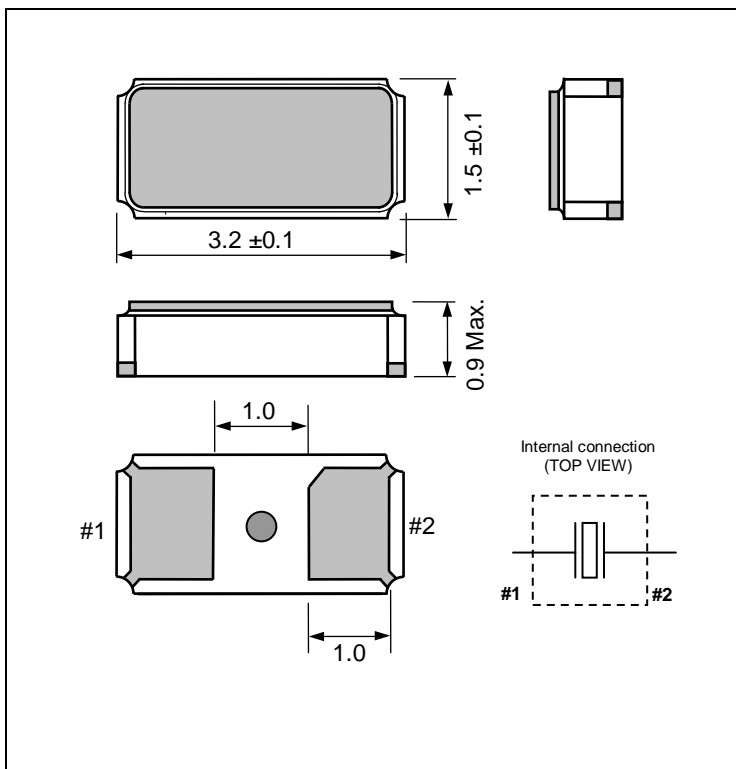
②Frequency

③Load capacitance(pF)

④Frequency tolerance(x10⁻⁶, +25 °C)

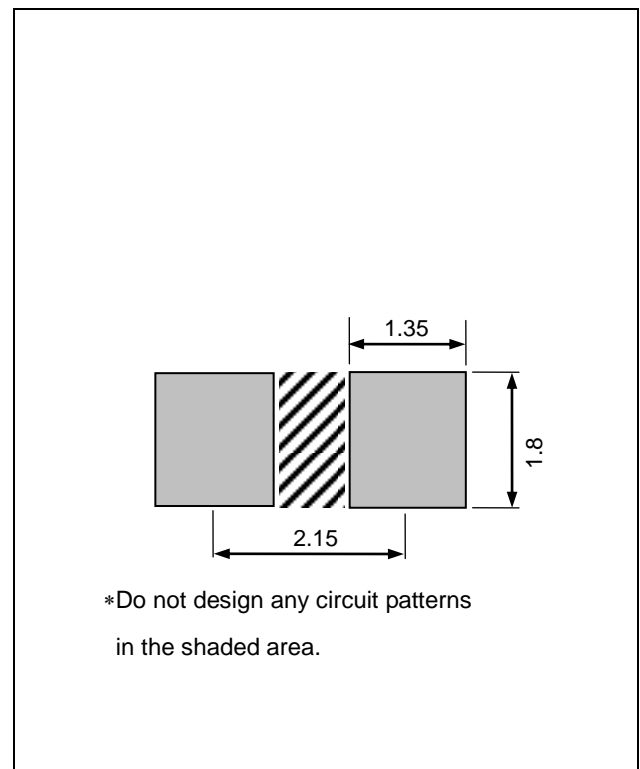
External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Epson:

[FC-13A 32.7680KA-A3](#)