



kHz RANGE CRYSTAL UNIT For Automotive



Product Number
Q1xMC30A2xxx00

MC-30A / MC-30A TYPE

- Frequency range : MC-30A --- 32.768 kHz
: MC-30A TYPE --- 20 kHz to 120 kHz
- External dimensions : 8.0 × 3.8 × 2.54 mm
- Overtone order : Fundamental
- Applications : Car audio, ECU sub clock,
Car navigation system, Clock
- Conforms to AEC-Q200



Specifications (characteristics)

Item	Symbol	Specifications		Conditions / Remarks
		MC-30A	MC-30A TYPE	
Nominal frequency range	f _{nom}	32.768 kHz	20 kHz to 120 kHz	Please contact us about available frequencies.
Storage temperature	T _{stg}	-55 C to +125 C		Storage as single product.
Operating temperature	T _{use}	-40 C to +85 C		
Level of drive	DL	1.0 μW Max.		
Frequency tolerance (standard)	f _{tol}	±20 × 10 ⁻⁶ , ±50 × 10 ⁻⁶	±50 × 10 ⁻⁶ , ±100 × 10 ⁻⁶	+25 C, DL=0.1 μW
Turnover temperature	T _i	+25 C ±5 C		
Parabolic coefficient	B	-0.04 × 10 ⁻⁶ / °C ² Max.		
Load capacitance	CL	6 pF to ∞ (standard :12.5 pF)		Please specify
Motional resistance (ESR)	R ₁	50 kΩ Max.	As per table below	
Motional capacitance	C ₁	1.8 fF Typ.	4.0 fF to 0.6 fF	
Shunt capacitance	C ₀	0.9 pF Typ.	2.0 pF to 0.6 pF	
Frequency aging	f _{age}	±3 × 10 ⁻⁶ / year Max.	±5 × 10 ⁻⁶ / year Max.	+25 C, First year

MC-30A TYPE Motional resistance (ESR)

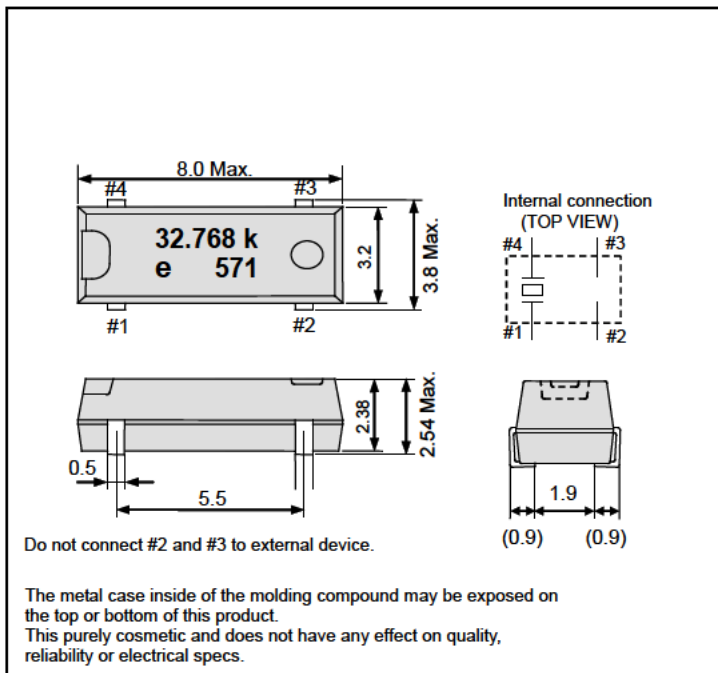
Frequency	20 kHz ≤ f _{nom} < 31.2 kHz	31.2 kHz ≤ f _{nom} < 40 kHz	40 kHz ≤ f _{nom} < 90 kHz	90 kHz ≤ f _{nom} ≤ 120 kHz
Motional resistance	55 kΩ Max.	35 kΩ Max.	20 kΩ Max.	12 kΩ Max.

Product name MC-30A 32.768000kHz 12.5 +20.0-20.0
(Standard form) ① ② ③ ④

①Model ②Frequency ③Load capacitance(pF) ④Frequency tolerance(× 10⁻⁶, +25 C)

External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)

