



kHz RANGE CRYSTAL UNIT

Product Number  
MC-306 : Q1xMC3062xxxx00

MC-306 / MC-306 TYPE

- Frequency range : MC-306--- 32.768 kHz  
: MC-306 TYPE--- 20 kHz to 120 kHz
- Thickness : 8.0 × 3.8 × 2.54 mm
- Overtone order : Fundamental
- Applications : Clock and Microcomputer



Specifications (characteristics)

Item	Symbol	Specifications		Conditions / Remarks
		MC-306	MC-306 TYPE	
Nominal frequency range	f <sub>nom</sub>	32.768 kHz	20 kHz to 120 kHz	Please contact us about available frequencies.
Storage temperature	T <sub>stg</sub>	-55 C to +125 C		Storage as single product.
Operating temperature	T <sub>use</sub>	-40 C to +85 C		
Level of drive	DL	1.0 μW Max.		
Frequency tolerance (standard)	f <sub>tol</sub>	±20 × 10 <sup>-6</sup> , ±50 × 10 <sup>-6</sup>	±50 × 10 <sup>-6</sup> , ±100 × 10 <sup>-6</sup>	+25 C, DL=0.1 μW
Turnover temperature	T <sub>i</sub>	+25 C ±5 C		
Load capacitance	CL	6 pF to ∞ (standard :12.5 pF)		Please specify
Motional resistance (ESR)	R <sub>1</sub>	50 kΩ Max.	As per table below	
Frequency aging	f <sub>age</sub>	±3 × 10 <sup>-9</sup> / year Max.	±5 × 10 <sup>-9</sup> / year Max.	+25 C, First year

MC-306 TYPE Motional resistance (ESR)

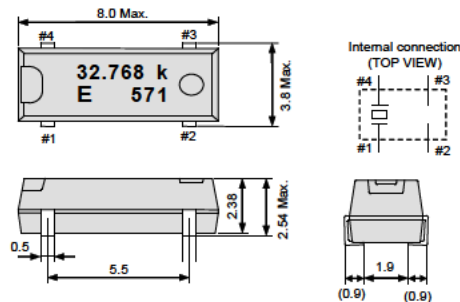
Frequency	20 kHz ≤ f <sub>nom</sub> < 31.2 kHz	31.2 kHz ≤ f <sub>nom</sub> < 40 kHz	40 kHz ≤ f <sub>nom</sub> < 90 kHz	90 kHz ≤ f <sub>nom</sub> ≤ 120 kHz
Motional resistance	55 kΩ Max.	35 kΩ Max.	20 kΩ Max.	12 kΩ Max.

Product name MC-306 32.768000kHz 12.5 +20.0-20.0  
(Standard form) ① ② ③ ④

①Model ②Frequency ③Load capacitance(pF) ④Frequency tolerance(× 10<sup>-6</sup>, +25 C)

External dimensions

(Unit:mm)



Do not connect #2 and #3 to external device.  
The metal case inside of the molding compound may be exposed on the top or bottom of this product.  
This purely cosmetic and does not have any effect on quality, reliability or electrical specs.

Footprint (Recommended)

(Unit:mm)

