



### MHz RANGE CRYSTAL UNIT



Product Number (please contact us)  
Q22MA3062xxxx00

# MA-306

- Frequency range : 14.31818 MHz, 17.734 MHz to 41 MHz
- External dimensions : 8.0 × 3.8 × 2.54 mm
- Overtone order : Fundamental
- Applications : For Clock of integrated circuit



Actual size



### Specifications (characteristics)

Item	Symbol	Specifications	Conditions / Remarks
Nominal frequency range	f_nom	14.31818 MHz, 17.734 MHz to 41.000 MHz	Fundamental
Storage temperature	T_stg	-55 °C to +100 °C	Storage as single product.
Operating temperature	T_use	-20 °C to +70 °C	
Level of drive	DL	10 μW to 100 μW	
Frequency tolerance (standard)	f_tol	±50 × 10 <sup>-6</sup>	+25 °C
Frequency versus temperature characteristics (standard)	f_tem	±30 × 10 <sup>-6</sup>	-20 °C to +70 °C Please contact us for requirements not listed in this specifications.
Load capacitance	CL	10 pF to ∞	Please specify
Motional resistance (ESR)	R <sub>1</sub>	60 Ω Max.	-20 °C to +70 °C, DL=100 μW
Frequency aging	f_age	±5 × 10 <sup>-6</sup> / year Max.	+25 °C, First year

Product name (Standard form) MA-306 24.000000MHz 12.0 +10.0-10.0

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

In addition to the above mentioned specification item, please specify frequency temperature characteristics and operating temperature range in case of inquiry.

### External dimensions

(Unit:mm)

Internal Connection (TOP VIEW)

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)