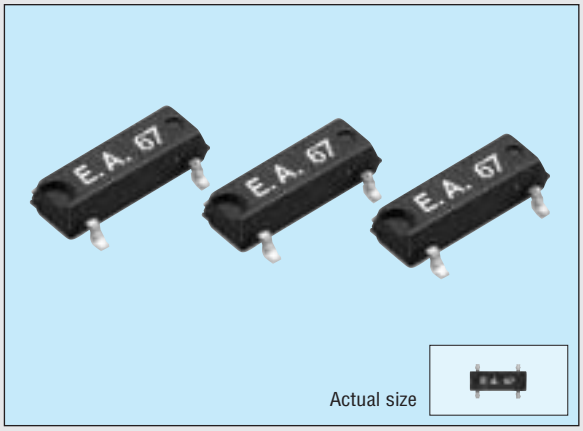
THIN SMD LOW/MEDIUM-FREQUENCY CRYSTAL UNIT

MC-206



Product number (please refer to page 1)
Q1xMC206xxxxx00

- High-density mounting-type SMD of Max. 2.0 mm thickness.
- High heat resistance allows reflow soldering.
- Excellent environmental capability.

Specifications (characteristics)

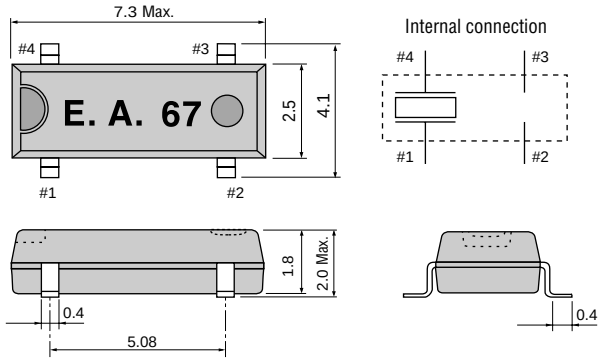
Item		Symbol	Specifications		Remarks
Nominal frequency		f	32.768 kHz	32.000 kHz to 100.000 kHz	
Temperature range	Storage temperature	T_{STG}	-55 °C to +125 °C		Stored as bare product after unpacking
	Operating temperature	T_{OPR}	-40 °C to +85 °C		
Maximum drive level		GL	1.0 μW Max.		
Frequency tolerance (standard)		Δf/f	±20 x 10^{-6}, ±50 x 10^{-6}	±50 x 10^{-6}, ±100 x 10^{-6}	Ta=+25 °C, DL=0.1 μW
Peak temperature (frequency)		θT	+25 °C ±5 °C		
Temperature coefficient (frequency)		a	-0.04 x 10^{-6} / °C² Max.		
Load capacitance		C_L	7 pF, 12.5 pF		Please specify
Series resistance		R_1	55 kΩ Max.	50 kΩ to 20 kΩ	As per below table
Motional capacitance		C_1	1.8 fF Typ.	3.0 fF Max.	
Shunt capacitance		C_0	0.9 pF Typ.	1.5 pF Max.	
Insulation resistance		IR	500 MΩ Min.		
Aging		fa	±3 x 10^{-6}/ year Max.	±5 x 10^{-6}/ year Max.	Ta= +25 °C ±3 °C, first year
Shock resistance		S.R.	±5 x 10^{-6} Max.		Three drops on a hard board from 750 mm or excitation test with 29400 m/s² x 0.3 ms x 1/2 sine wave x 3 directions

Series resistance

Frequency (kHz)	32 ≤ f < 38	38 ≤ f < 65.536	65.536 ≤ f < 75	75 ≤ f ≤100
Series resistance (Ω)	50 kΩ Max.	40 kΩ Max.	25 kΩ Max.	20 kΩ Max.

External dimensions

(Unit: mm)



Do not connect #2 and #3 to external device.
Metal may be exposed on the top or bottom of this product. This won't affect any quality, reliability or electrical spec.

Recommended soldering pattern

(Unit: mm)