



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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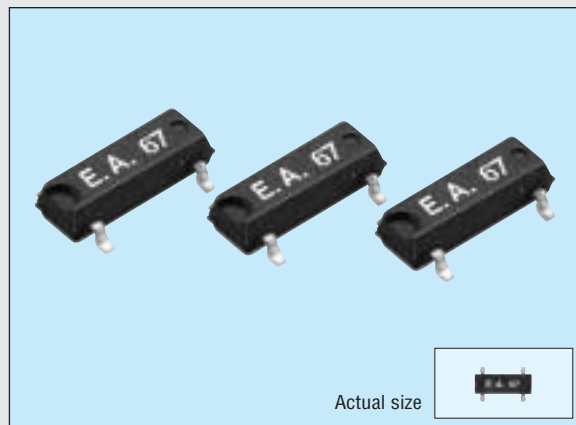
THIN SMD LOW/MEDIUM-FREQUENCY CRYSTAL UNIT

# MC-206

Product number (please refer to page 1)

**Q1xMC206xxx00**

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



## Specifications (characteristics)

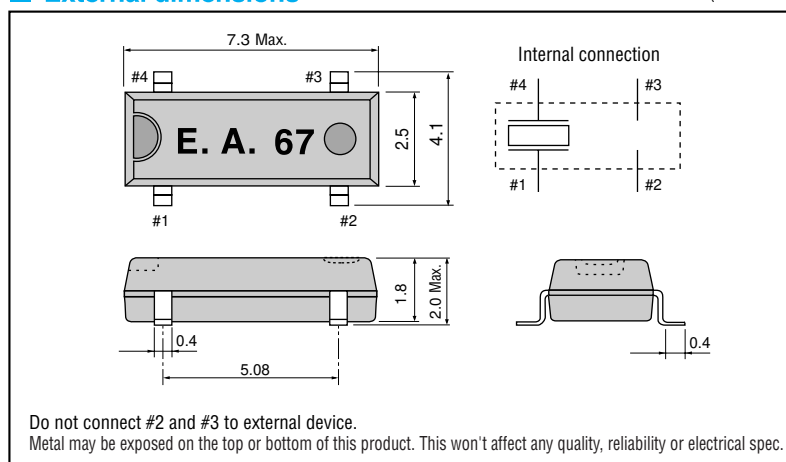
Item	Symbol	Specifications		Remarks
Nominal frequency	f	32.768 kHz	32.000 kHz to 100.000 kHz	
Temperature range	Storage temperature	T <sub>STG</sub> -55 °C to +125 °C		Stored as bare product after unpacking
	Operating temperature	T <sub>OPR</sub> -40 °C to +85 °C		
Maximum drive level	GL	1.0 μW Max.		
Frequency tolerance (standard)	Δf/f	±20 x 10 <sup>-6</sup> , ±50 x 10 <sup>-6</sup>	±50 x 10 <sup>-6</sup> , ±100 x 10 <sup>-6</sup>	Ta=+25 °C, DL=0.1 μW
Peak temperature (frequency)	θT	+25 °C ±5 °C		
Temperature coefficient (frequency)	a	-0.04 x 10 <sup>-6</sup> / °C <sup>2</sup> Max.		
Load capacitance	C <sub>L</sub>	7 pF, 12.5 pF		Please specify
Series resistance	R <sub>1</sub>	55 kΩ Max.	50 kΩ to 20 kΩ	As per below table
Motional capacitance	C <sub>1</sub>	1.8 fF Typ.	3.0 fF Max.	
Shunt capacitance	C <sub>0</sub>	0.9 pF Typ.	1.5 pF Max.	
Insulation resistance	IR	500 MΩ Min.		
Aging	fa	±3 x 10 <sup>-6</sup> / year Max.	±5 x 10 <sup>-6</sup> / year Max.	Ta= +25 °C ±3 °C, first year
Shock resistance	S.R.	±5 x 10 <sup>-6</sup> Max.		Three drops on a hard board from 750 mm or excitation test with 29400 m/s <sup>2</sup> 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)



## Recommended soldering pattern

(Unit: mm)

