

## THIN SMD LOW/MEDIUM-FREQUENCY CRYSTAL UNIT

## MC-206

- High-density mounting-type SMD of max. 2.0mm thickness.
- Small packaging area and light weight.
- High heat resistance allows reflow soldering.
- Excellent shock resistance and environmental capability.
- Most suitable for small communications devices.



Actual size

### Specifications (characteristics) <http://www.konuaer.com>

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		
	Operating temperature	T <sub>OPR</sub> -40°C to +85°C		
Maximum drive level	GL	1.0μW max.		
Soldering condition	T <sub>SOL</sub>	Twice at under 260°C within 10 sec. or under 230°C within 3 min.		
Frequency tolerance (standard)	Δf/f	±20ppm, ±50ppm	±50ppm, ±100ppm	T <sub>a</sub> =25°C, DL=0.1μW
Peak temperature (frequency)	θT	25°C ±5°C		
Temperature coefficient (frequency)	a	-0.04ppm/°C <sup>2</sup> max.		
Load capacitance	C <sub>L</sub>	6pF to ∞		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>	1.8fF typ.	3.0fF max.	
Shunt capacitance	C <sub>0</sub>	0.9pF typ.	1.5pF max.	
Insulation resistance	IR	500 MΩ min.		
Aging	f <sub>a</sub>	±3ppm/year max.	±5ppm/year max.	T <sub>a</sub> =25°C ±3°C, first year
Shock resistance	S.R.	±5ppm max.		Three drops on a hard board from 75 cm or excitation test with 3000G x 0.3ms x 1/2 sine wave x 3 directions

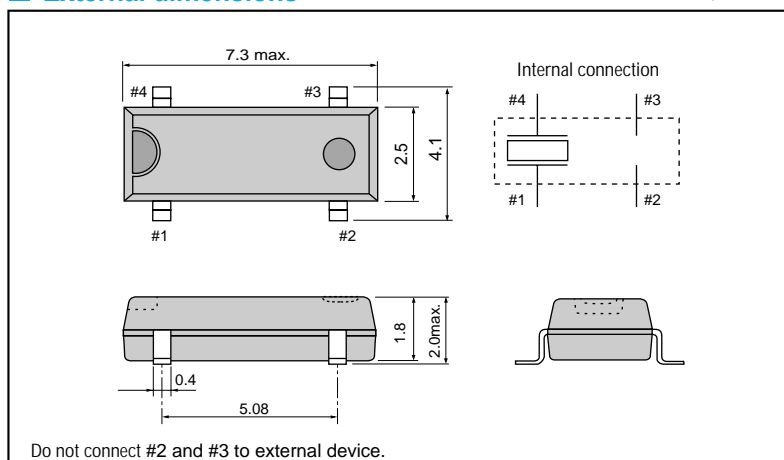
Metal may be exposed on the top of this product. This won't affect any quality, reliability or electrical spec.

### Series resistance

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

### External dimensions

(Unit: mm)



### Recommended soldering pattern

(Unit: mm)

