### 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.



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

Item		Symbol	Specifications		Remarks	
Nominal frequency		f	32.768 kHz	32.000 kHz to 100.000 kHz		
Temperature Storage temperature		Тѕтс	-55°C to +125°C			
range	Operating temperature	Topr	-40°C to +85°C			
Maximum drive level		GL	1.0μW max.			
Soldering condition		Tsol	Twice at under 260°C within 10 sec. or under 230°C within 3 min.			
Frequency tolerance (standard)		Δf/f	±20ppm, ±50ppm	±50ppm, ±100ppm	Ta=25 <sup>-</sup> C, DL=0.1μW	
Peak temperature (frequency)		θТ	25°C ±5°C			
Temperature coefficient (frequency)		а	-0.04ppm/*C² max.			
Load capacitance		CL	6pF to ∞		Please specify	
Series resistance		R <sub>1</sub>	55 k <b>Ω</b> max.	50 kΩ to 20 kΩ	As per below table	
Motional capacitance		C <sub>1</sub>	1.8fF typ.	3.0fF max.		
Shunt capacitance		Co	0.9pF typ.	1.5pF max.		
Insulation resistance		IR	$500~{ m M}\Omega$ min.			
Aging		fa	±3ppm/year max.	±5ppm/year max.	Ta=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 ( $\Omega$ )	50k Ω max.	40k Ω max.	25k <b>Ω</b> max.	20k Ω max.

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