

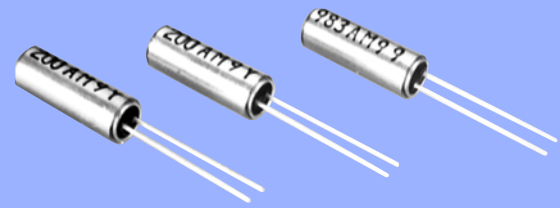
MHz RANGE CRYSTAL UNIT CYLINDER

CA-301

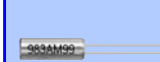
- Frequency range : 4 MHz to 64 MHz
- Thickness : $\phi 3.1$ mm Max.
- Overtone order : Fundamental
3rd overtone (30 MHz to 64 MHz)
- Applications : For Clock of integrated circuit



Product Number (please contact us)
Q21CA3011xxxx00



Actual size



Specifications (characteristics)

Item	Symbol	Specification	Remarks	
Nominal frequency range	f _{nom}	4.000 MHz to 29.999 MHz	Fundamental *1	
		30.000 MHz to 64.000 MHz	3rd overtone *2	
Temperature range	Storage temperature	T _{stg}	-40 °C to +85 °C	Store as bare product after unpacking
	Operating temperature	T _{use}	-20 °C to +70 °C	The operating temperature range is -10 °C to +60 °C for 5.5 MHz and below
Level of drive	DL	10 μ W to 100 μ W		
Frequency tolerance (standard)	f _{tol}	$\pm 30 \times 10^{-6}$ (Under 5.5 MHz: $\pm 50 \times 10^{-6}$, $\pm 100 \times 10^{-6}$)	+25 °C	
Frequency versus temperature characteristics (standard)	f _{tem}	Under 5.5 MHz: $\pm 50 \times 10^{-6}$	-10 °C to +60 °C	
		Over 5.5 MHz: $\pm 30 \times 10^{-6}$	-20 °C to +70 °C	
Load capacitance	CL	Fundamental: 10 pF to ∞ Overtone: 5 pF to ∞	Please specify	
Motional resistance (ESR)	R ₁	As per below table	-20 °C to +70 °C, DL=100 μ W	
Frequency aging	f _{age}	$\pm 5 \times 10^{-6}$ / year Max.	+25 °C, First year	

*1 4.0 MHz \leq f_{nom} < 5.5 MHz : See "Available frequencies from 4.0 MHz to less than 5.5 MHz". 8.0 MHz < f_{nom} < 8.2 MHz: Unavailable.

*2 26.000 MHz \leq f_{nom} < 30.000 MHz : please contact us for inquiries for 3rd overtone mode.

Available frequencies from 4.0 MHz to less than 5.5 MHz (MHz)

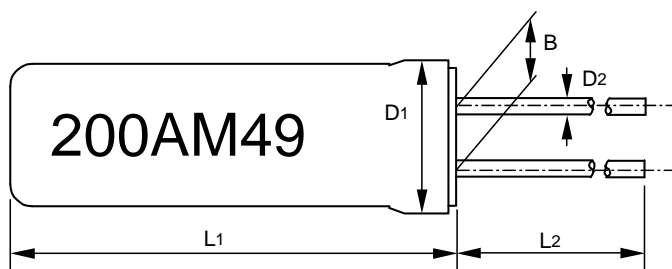
4.000	4.032	4.096	4.190	4.194304	4.433619	4.500	4.800	4.9152
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Motional resistance (ESR)

Frequency (MHz)	4 \leq f _{nom} < 5.5	5.5 \leq f _{nom} < 6	6 \leq f _{nom} < 10	10 \leq f _{nom} < 12	12 \leq f _{nom} < 16	16 \leq f _{nom} < 30	30 \leq f _{nom} \leq 36	36 < f _{nom} \leq 64
Motional resistance	150 Ω Max.	100 Ω Max.	80 Ω Max.	60 Ω Max.	50 Ω Max.	40 Ω Max.	100 Ω Max.	80 Ω Max.
Overtone order	Fundamental						3rd overtone	

External dimensions

(Unit:mm)



Frequency	L1	L2	D1	D2	B
Under 5.5 MHz	9.3 Max.	9.5 Min.	$\phi 3.1$ Max.	$\phi 0.3$	1.1
Over 5.5 MHz	8.9 Max.	9.5 Min.	$\phi 3.1$ Max.	$\phi 0.3$	1.1