

HCM49

(1,000pcs/reel)



■ FEATURES:

- The HCM49 is a high-performance miniature crystal units manufactured with Citizen's ultrahigh-precision processing technology.
- Excellent vibration resistance, shock resistance and environmental characteristics.
- Can be mounted automatically because of the emboss taping used.

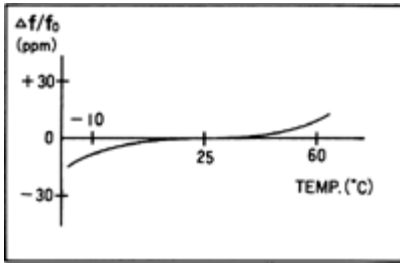
■ APPLICATIONS:

- Can be used for a wide range of applications including use in AV equipment, OA equipment, communication equipment and measuring instruments.

■ STANDARD SPECIFICATIONS

Item		HCM49	Conditions
Nominal frequency	f_0	3.5MHz to 30MHz (Fund) 30MHz to 70MHz (3rd OT)	Please contact for change in frequency.
Frequency tolerance	$\Delta f/f_0$	$\pm 30\text{ppm}$ or $\pm 50\text{ppm}$	(25°C) Reference temperature
Frequency vs. Temperature Characteristics	$\Delta f/f_0$	30ppm or 50ppm	-10°C to +60°C
Operating temperature range	T_{opr}	-40°C to +85°C	
Storage temperature range	T_{stg}	-55°C to +125°C	Store by one unit
Equivalent series resistance	R_1	see drawing	at 25°C
Load capacitance	C_L	16pF TYP.	Please specify
Shunt capacitance	C_0	7.0pF MAX.	
Drive level	DL	50 to 100 μ W	
Insulation resistane	IR	500M ohm MIN.	DC100V \pm 15V
Aging (First year)	$\Delta f/f_0$	$\pm 5\text{ppm}$ MAX.	25°C \pm 3°C
Sealing		$1 \times 10^{-2} \mu \text{ Pa} \cdot \text{m}^3 / \text{s}$ MAX.	
Shock resistance		$\pm 10\text{ppm}$ MAX. Drop test of 3 times on a hard board from 75cm height or shock test of 3000G x 0.3ms x 1/2sin wave x 3 directions	Conditions will vary depending on the frequency

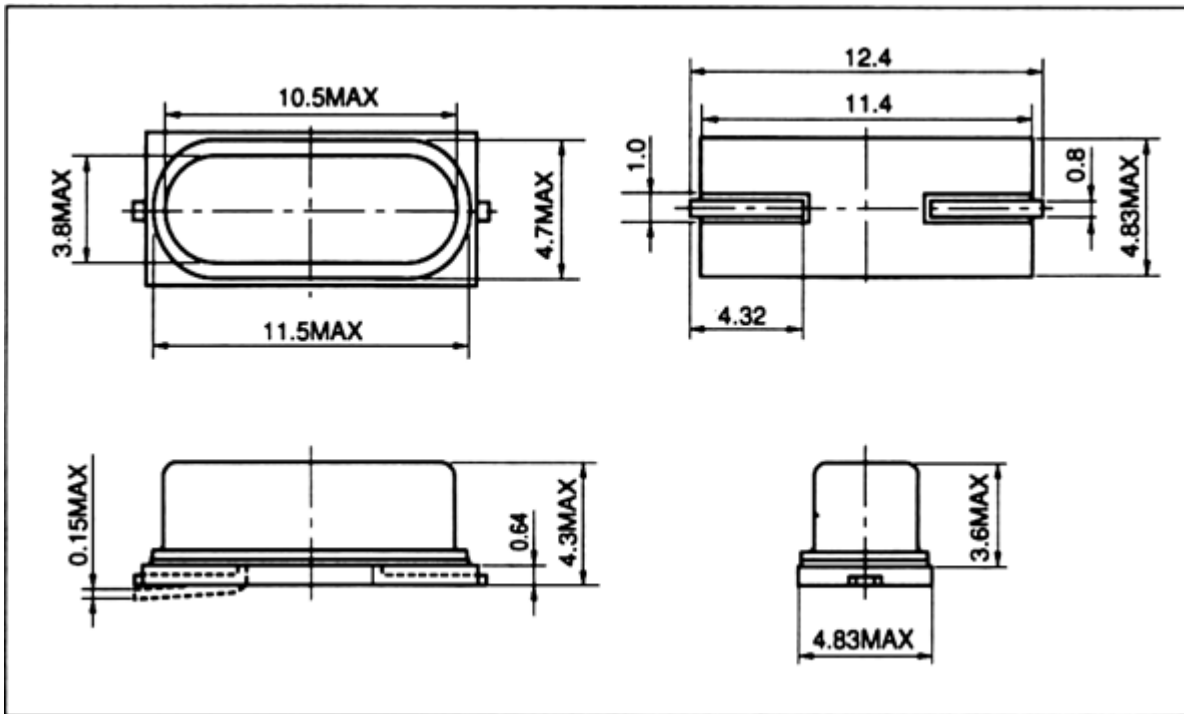
■ FREQUENCY vs TEMPERATURE CURVE



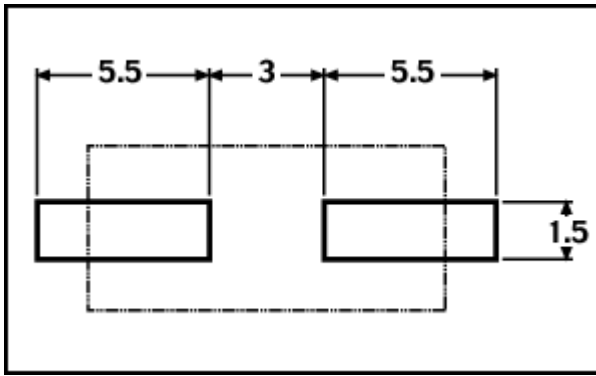
■ EQUIVALENT SERIES RESISTANCE (ESR, R1)(Ohm MAX.)

Frequency	R1
3.5MHz < (=) f ₀ < 4.0MHz	200
4.0MHz < (=) f ₀ < 6.0MHz	150
6.0MHz < (=) f ₀ < 10.0MHz	100
10.0MHz < (=) f ₀ < 14.0MHz	80
14.0MHz < f ₀ < (=) 30.0MHz	50
30.0MHz < f ₀ < (=) 36.0MHz	140
36.0MHz < f ₀ < (=) 70.0MHz	100

■ DIMENSIONS: (UNIT=mm)



■ RECOMENDED SOLDERING PATTERN: (UNIT=mm)



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