CM309S

(1,000pcs/reel)

FEATURES:

- Being of the miniature SMD type and featuring high efficiency in mounting, the CM309S is ideal for application to high-density circuit boards.
- As it incorporates a heat-resisting packaged cylinder-type crystal, this crystal makes best use of the superb characteristic AT-cut crystals have, and permits reflow soldering.
- Enables automatic mounting, due to the adoption of the emboss taping packaging.

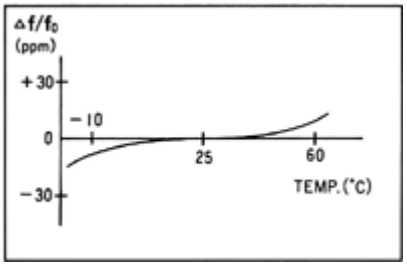
APPLICATIONS:

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

STANDARD SPECIFICATIONS

Item		CM309S	Conditions
Nominal frequency	f_0	3.5MHz to 32MHz(fund), 30MHz to 70MHz(3rd OT)	Please contact us for changes in frequency.
Frequency tolerance	deltaf/f_0	± 30ppm or ± 50ppm	(25°C) Reference temperature
Frequency vs.Temperature Characteristics	deltaf/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	16.0pF TYP.	Please specify
Shunt capacitance	C_0	7.0pF MAX.	
Drive level	DL	50 µ W to 100 µ W	
Insulation resistane	IR	500M ohm MIN.	DC100V ± 15V
Aging (First year)	deltaf/f_0	± 5ppm MAX.	25°C ± 3°C
Sealing		1 x 10^{-2} µ Pa·m^3 /s MAX.	
Shock resistance	±5ppm 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		Condition will vary depending on the frequency.

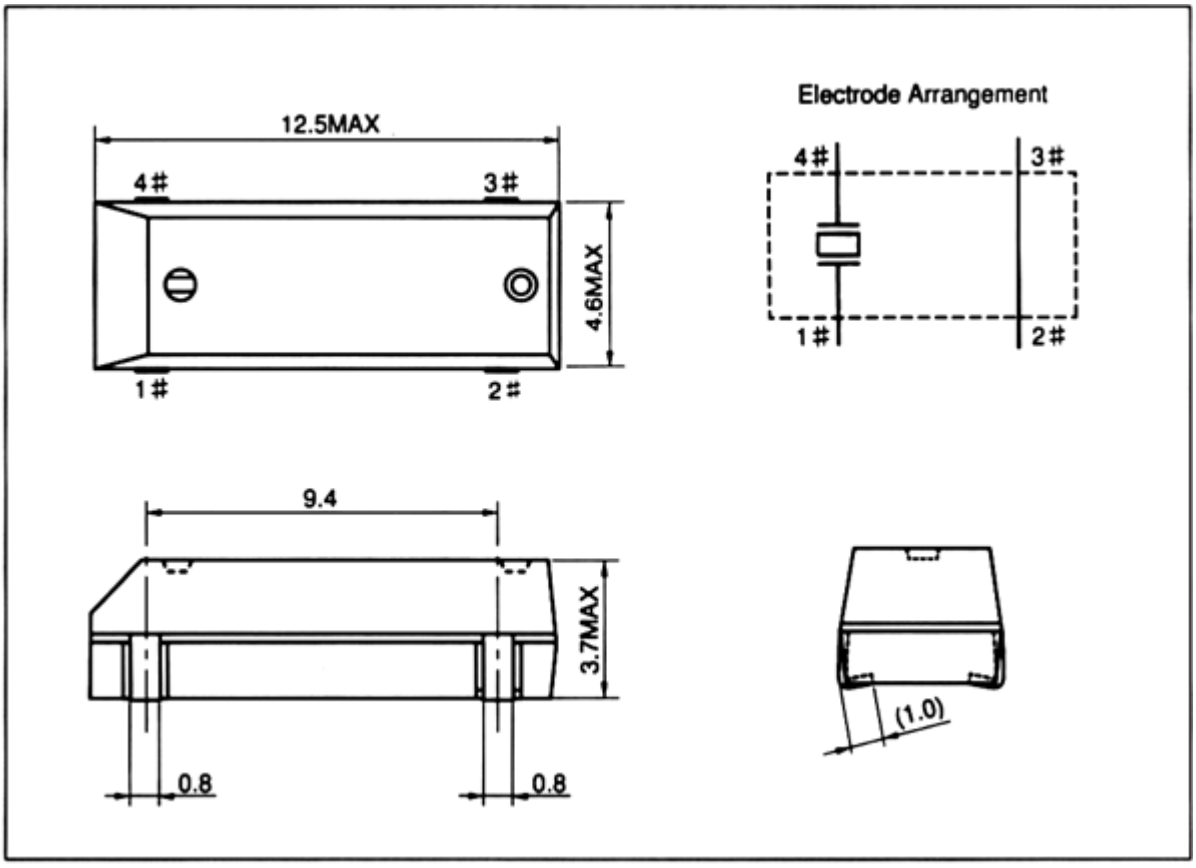
FREQUENCY vs TEMPERATURE CURVE



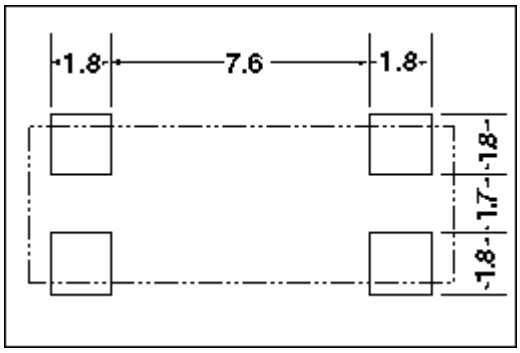
EQUIVALENT SERIES RESISTANCE (ESR, R1)(Ohm MAX.)

Frequency	Equivalent series resistance	Mode
3.5MHz <(=) f0 < 4MHz	200	Fundamental
4MHz <(=) f0 < 6MHz	150	
6MHz <(=) f0 < 10MHz	100	
10MHz <(=) f0 < (=)32MHz	50	
30MHz < f0 < 36MHz	100	3rd OT
36MHz <(=) f0 < 70MHz	80	

DIMENSIONS: (UNIT=mm)



RECOMENDED PATTERNING: (UNIT=mm)



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