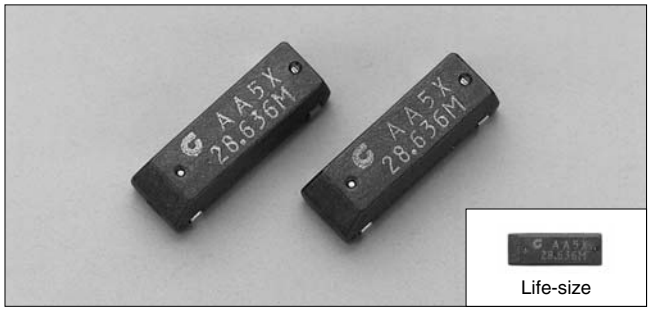
AT-CUT CRYSTAL UNIT (SMD • Plastic Package)

CITIZEN Micro HumanTech

RoHS Compliant Optional

CM309S

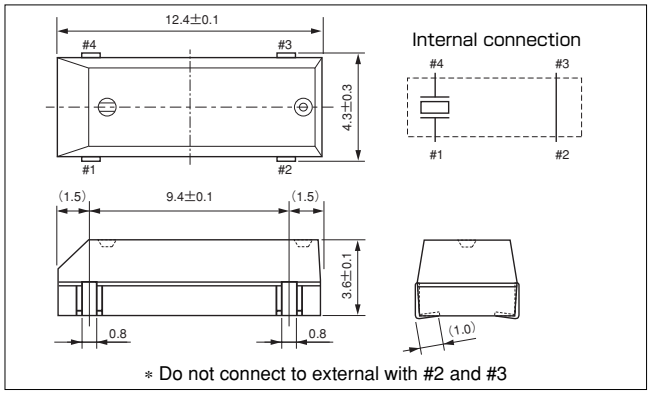
1000pcs/reel



■FEATURES

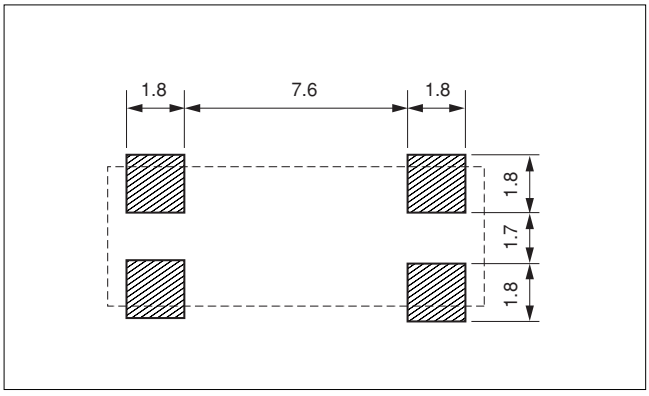
- Embeded with heat resistant cylinder type crystal bring highly stable characteristics.
- Automatic mounting and reflowable Type.
- Suitable for various applications such as communication devices, AV devices, automotive devices and measuring instruments.

■DIMENSION [mm]



∗ Do not connect to external with #2 and #3

■SOLDER PAD LAYOUT [mm]



■STANDARD SPECIFICATIONS

Item	Model	CM309S	Conditions
Nominal Frequency	f_0	3.5MHz～34.0MHz（Fundamental）	Need to contact us for the available frequency
		27.0MHz～70.0MHz（3rd Overtone）	
Frequency Tolerance	$\triangle f/f_0$	±30ppm	at 25˚C
Frequency Tolerance over Operating Temperature Range	$\triangle f/f_0$	below 6.0MHz：±50ppm	−10℃～+60℃
		above 6.0MHz：±30ppm	See figure 3 in P4
Operating Temperature Range	T_{OPR}	−40℃～+85℃	
Storage Temperature Range	T_{STR}	−55℃～+125℃	
Motional (series) resistance	R_1	Refer to the following table	at 25˚C
Load capacitance	C_L	16.0pF, 18.0pF	Need to specify your requirement
Shunt capacitance	C_0	7.0pF Max.	
Level of drive	D_L	100 μW Max.	
Insulation Resistance	I_R	500MΩMin.	DC100V±15V
Aging (first year)	$\triangle f/f_0$	±5ppm Max.	25℃±3℃

■MOTIONAL (SERIES) RESISTANCE (R_1)

Frequency Range	3.5MHz≦f_0<4.0MHz	4.0MHz≦f_0<6.0MHz	6.0MHz≦f_0<10MHz	10MHz≦f_0<27MHz	27MHz≦f_0<36MHz		36MHz≦f_0≦70MHz
Mode	Fundamental	Fundamental	Fundamental	Fundamental	Fundamental	3rd Overtone	3rd Overtone
R_1	200Ω Max.	150Ω Max.	100Ω Max.	50Ω Max.	50Ω Max.	100Ω Max.	80Ω Max.

http://www.citizen.co.jp/crystal/index.html