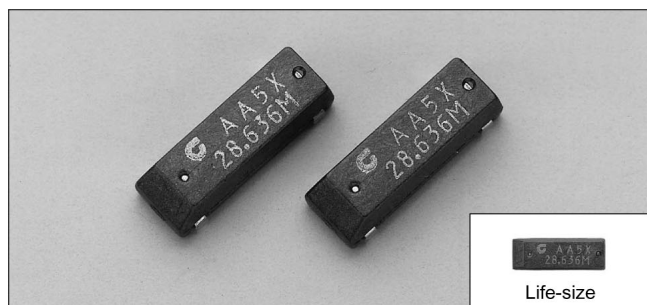


AT-CUT CRYSTAL UNIT (SMD • Plastic Package)

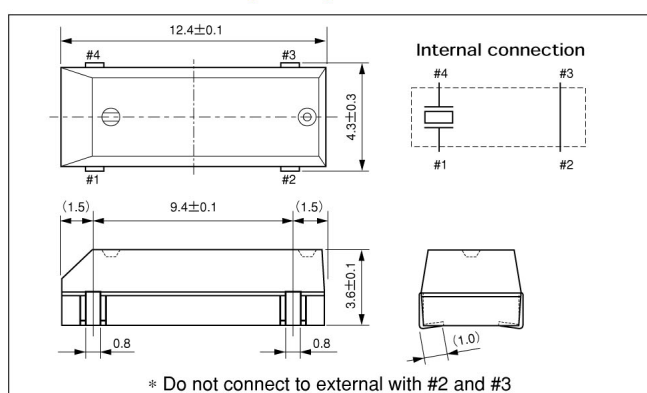
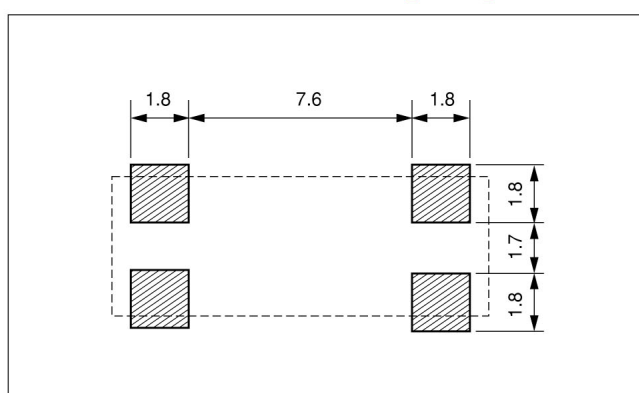
RoHS Compliant Optional

CM309S

1000pcs/reel

**FEATURES**

- Embedded 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]**SOLDER PAD LAYOUT [mm]****STANDARD SPECIFICATIONS**

Item	Model	CM309S	Conditions
Nominal Frequency	f_0	3.5MHz~30.0MHz (Fundamental)	Need to contact us for the available frequency
		30.001MHz~70.0MHz (3rd Overtone)	
Frequency Tolerance	$\Delta f/f_0$	$\pm 30\text{ppm}$	at 25°C
Frequency Tolerance over Operating Temperature Range	$\Delta f/f_0$	$\pm 50\text{ppm}$	-10°C~+60°C
Operating Temperature Range	T_{OPR}	-40°C~+85°C	
Storage Temperature Range	T_{STR}	-55°C~+125°C	
Motional (series) resistance	R_1	Refer to the following table	at 25°C
Load capacitance	C_L	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	500M Ω Min.	DC100V $\pm$ 15V
Aging (first year)	$\Delta f/f_0$	$\pm 5\text{ppm}$ Max.	25°C $\pm$ 3°C

MOTIONAL (SERIES) RESISTANCE (R_1)

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