

## SMD Tuning Fork Crystal

## MCM500S Series

SMD Ultra Miniature Type

(30 - 200 KHz)

# MEC Crystals

### Features:

- High stability
- Low profile, plastic SM package
- Tape & Reel (3000 pcs/reel)
- Frequency: 30 - 200 KHz
- **RoHs Compliant (Pb Free)**

### Applications:

- Microprocessor systems
- Consumer electronics



### Electrical Specifications:

Series	MCM500S	
Item	Symbol	Specifications
Frequency	$f_0$	30 - 200 KHz
Frequency Tolerance	$\Delta f/f_0$ (25°C)	$\pm 20$ ppm
Turnover	TO	$25 \pm 5^\circ\text{C}$
Frequency Temp. Coefficient	beta	$-0.034 \pm 0.006$ ppm / °C2
Operating Temperature	T	$-40^\circ\text{C} \sim +85^\circ\text{C}$
Storage Temperature	T <sub>stg</sub>	$-55^\circ\text{C} \sim +125^\circ\text{C}$
Equivalent Series Resistance	R1 (25°C ref.)	50 Kohm max
Max Insulation Resistance	IR	500 Mohm Min. (DC 100V $\pm$ 15V)
Load Capacitance	CL	12.5 pF Typical or specify
Motional Capacitance	C1	4.0 fF Max.
Shunt Capacity	Co	2.0 pF Max. (1.5 pF Typical)
Capacitance Ratio	gamma	500 Typical
Drive Level	DL	1.0 $\mu$ W Max.
Aging	fa	$\pm 3$ ppm / year (25°C $\pm$ 3°C)
Shock Resistance	$\pm 5$ 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.	

### Part Numbering System:

MCM500S - 30.000 - \_\_\_\_\_  
①                      ②                      ③

① Series

MCM500S-327

② Frequency

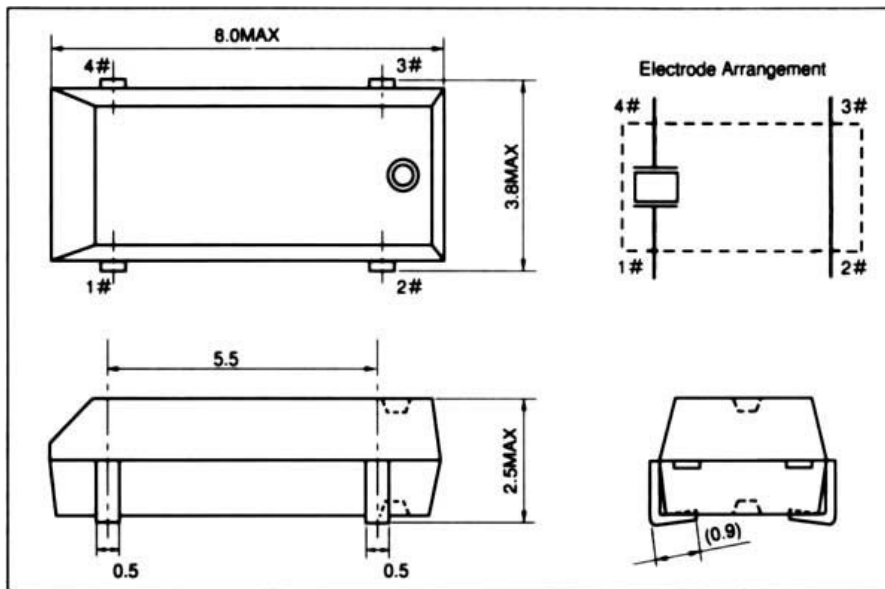
Frequency  
ex. 16.000

③ Load Capacitance

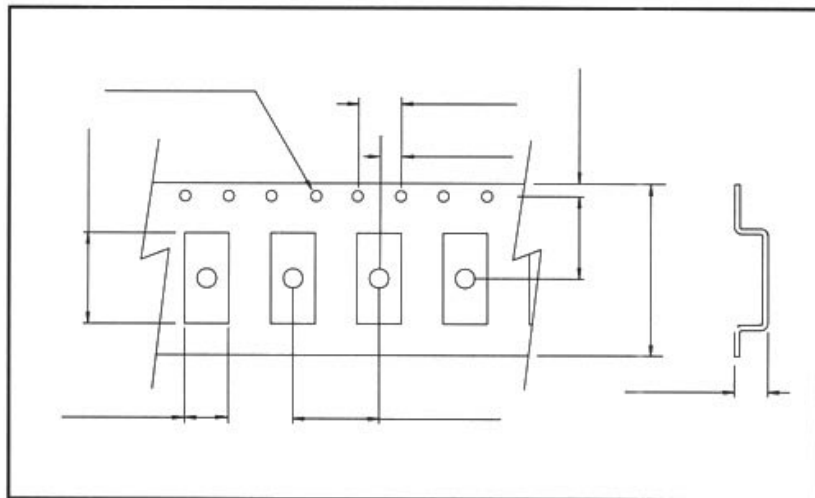
Code	Load Capacitance
Nil	12.5 pF
6	6 pF
8	8 pF
or specify	

**Remark:** Specifications are subject to change without prior notice. Please confirm with our sales engineer.

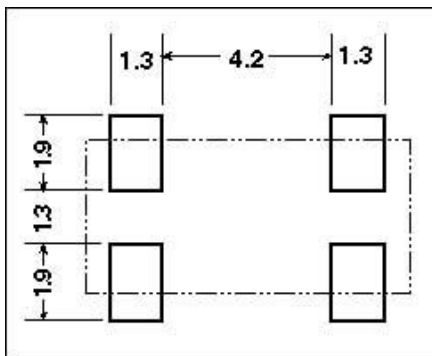
**Dimensions:**



**Carrier Tape Dimensions:**



**Recommended Patterning:**



**Frequency vs Temperature Curve:**

