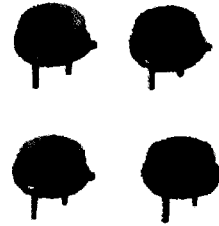




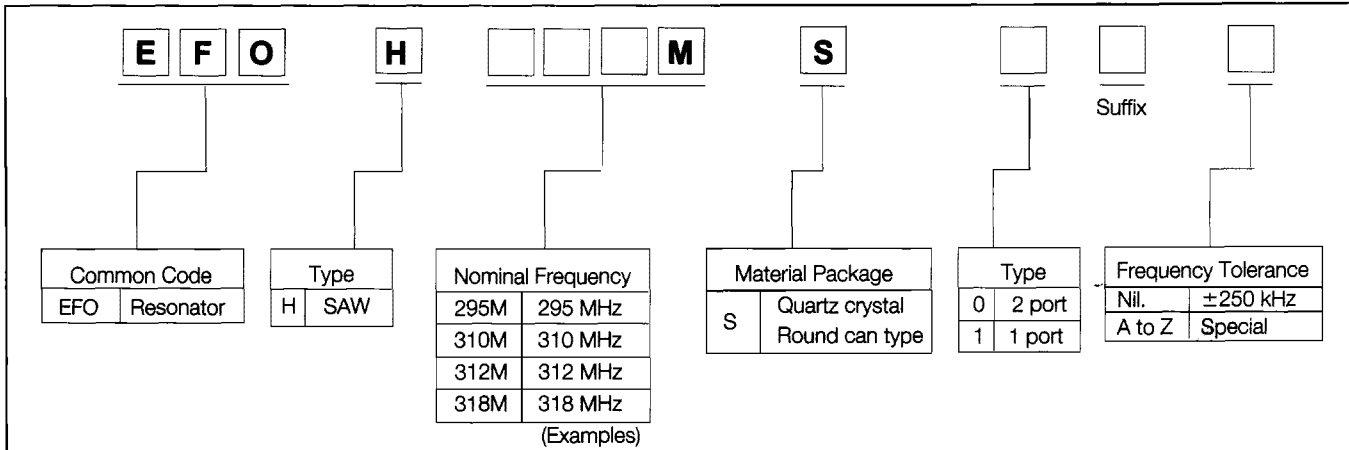
UHF SAW Resonator is capable of fundamental wave oscillation, and it is particularly suited for simplification, size reduction and stabilization of the circuit, compared with conventional LC oscillation and quartz crystal oscillation.



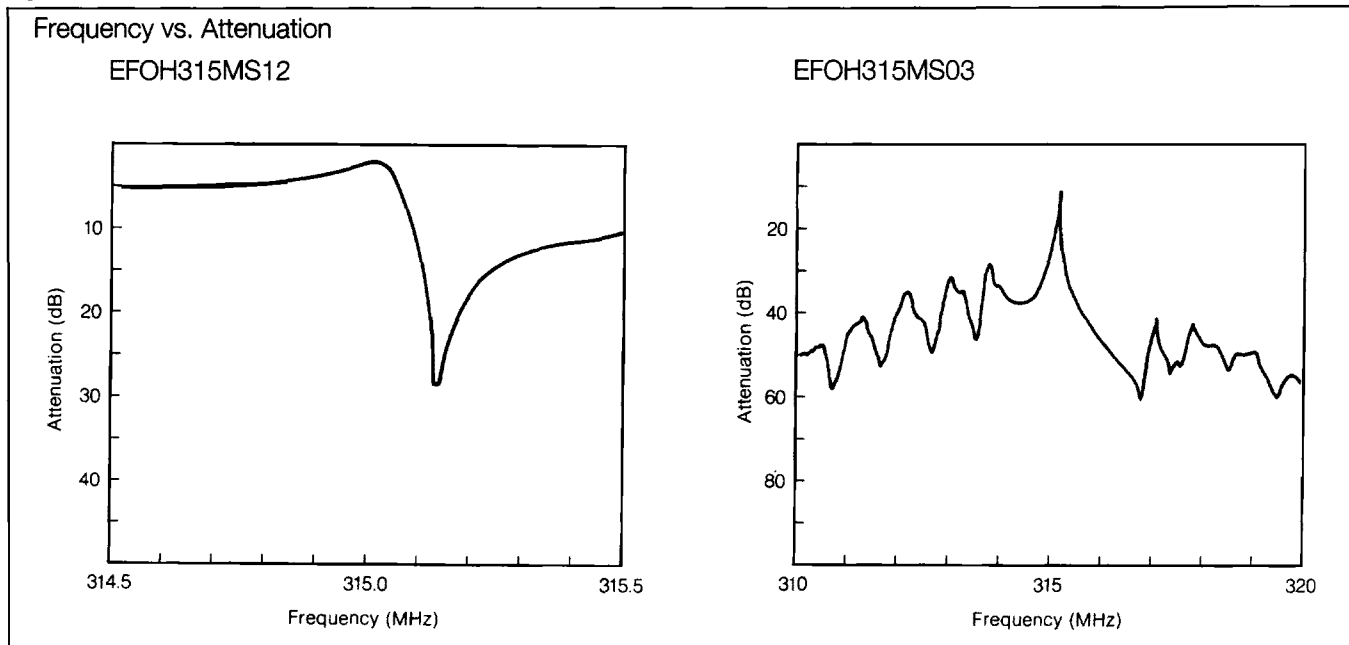
**Features**

- Capable of fundamental oscillation.
- Superior temperature characteristics.
- Suited for circuit simplification, size reduction and stabilization.
- Wide frequency range: 200 to 700MHz (Available for requested frequency)

**Explanation of Part Numbers**



**Typical Characteristics**



**Ratings and Characteristics  
(2 port type)**

Item Part No.	Center Frequency (MHz)	Insertion Loss (dB)	Loaded Q	Capacitance (pF)	Temperature Characteristics
EFOH224MS03	224.50±0.25	15 max.	7000 min.	1.3±0.3	Maximum Frequency Drift: -150 to 50 ppm/°C (-20 to 80°C)
EFOH295MS03	295.50±0.25				
EFOH304MS03	303.875±0.250				
EFOH310MS03	310.00±0.25				
EFOH312MS03	312.00±0.25				
EFOH315MS03	315.00±0.25				
EFOH318MS03	318.00±0.25		5000 min.		
EFOH407MS03	407.00±0.25				
EFOH418MS03	418.00±0.25				
EFOH434MS03	433.92±0.25				
EFOH458MS03	458.00±0.25				

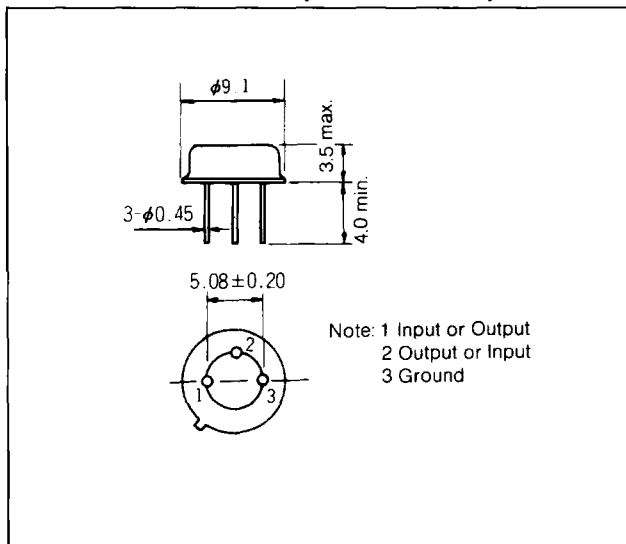
- Operating Temperature Range: - 20 to 80°C
- Phase shift: 180°

**(1 port type)**

Item Part No.	Resonant Frequency (MHz)	Resonant Resistance (Ω)	Capacitance (pF)	Temperature Characteristics
EFOH224MS12	224.50±0.25	30 max.	2.0+0.5	Maximum Frequency Drift: -150 to 50 ppm (-20 to 80°C)
EFOH304MS12	303.875±0.250			
EFOH312MS12	312.00±0.25			
EFOH315MS12	315.00±0.25			
EFOH318MS12	318.00±0.25			
EFOH418MS12	418.00±0.25			
EFOH434MS12	433.92±0.25			

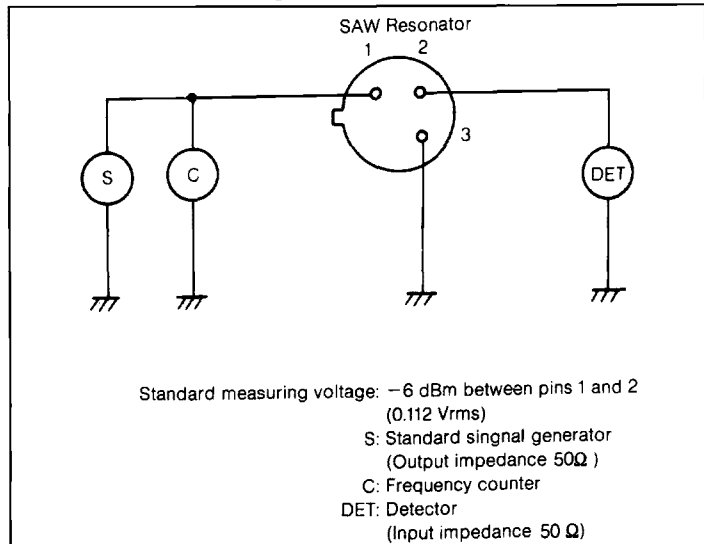
- Operating Temperature Range: -20 to 80°C

**Dimensions in mm (not to scale)**



Notes •Also available are types other than above standard products in the frequency range of 200 to 700 MHz.

**Test Circuit Diagram**



•Other frequency tolerances are available. Please contact us.

**Performance Characteristics (UHF SAW Resonators)**

Characteristics		Test Methods	Specifications													
<b>Mechanical</b>	Shock	Specimen shall be dropped 10 times onto a wooden board from height of 1 m.	(Change after the test shall be within the following range) [2 port type]      [1 port type] •CenterFrequency: ±100 ppm max.    •Resonant Frequency: ±100 ppm max. • Insertion Loss: ±2 dB max.      •Resonant Resistance: ±5Ω max.													
	Vibration	The specified single harmonic vibration shall be applied to the specimen to each of three perpendicular direction for 1 hour (for totals of 3 hours). •Amplitude:0.75 mm/single, (1.5 mm/double) •Sweep frequency and its interval: 10 Hz-55 Hz-10 Hz with duration of 1 minute														
	Resistance to Soldering Heat	Lead wires of the specimen shall be immersed up to 3 mm from its neck for 5 seconds in a solder bath of 350±5°C														
	Robustness of Terminations (Tensile)	Specimen shall be secured by the body, and the specified force of 10 N(1.02 kgf) shall be applied for 10 seconds in the axial direction of lead wires.	No remarkable mechanical or electrical abnormality.													
<b>Environmental</b>	Damp Heat (Steady State)	Specimen shall be subjected to in an ambient of 60±2°C and 90 to 95 %RH for 500 hours and be stored at room temperature for 1 hour before the specified measurements.	(Change after the test shall be within the following range) [2 port type]      [1 port type] •Center Frequency: ±100 ppm max.    •Resonant Frequency: ±100 ppm max. •Insertion Loss: ±2 dB max.      •Resonant Resistance: ±5 Ω max.													
	Dry Heat	Specimen shall be subjected to in an ambient of 85±2C for 500 hours and be stored at room temperature for 1 hour before the specified measurements.														
	Cold	Specimen shall be subjected to in an ambient of -40±3C for 500 hours and be stored at room temperature for 1 hour before the specified measurements.														
	Temperature Cycle	The specified temperature cycles following shall be repeated 100 times, and be stored at room temperature for 1 hour before the specified measurements. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Step</th> <th>Temperature</th> <th>Period</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-20±3°C</td> <td>30 minutes</td> </tr> <tr> <td>2</td> <td>Room Temp.</td> <td>2 to 3 minutes</td> </tr> <tr> <td>3</td> <td>80±2°C</td> <td>30 minutes</td> </tr> <tr> <td>4</td> <td>Room Temp.</td> <td>2 to 3 minutes</td> </tr> </tbody> </table>		Step	Temperature	Period	1	-20±3°C	30 minutes	2	Room Temp.	2 to 3 minutes	3	80±2°C	30 minutes	4
Step	Temperature	Period														
1	-20±3°C	30 minutes														
2	Room Temp.	2 to 3 minutes														
3	80±2°C	30 minutes														
4	Room Temp.	2 to 3 minutes														