



■ FEATURES:

- Low Cost
- Industry Standard
- Wide Frequency Range
- Excellent Aging

■ SPECIFICATION:

Type	49S& 49SA& 49SB& 49SC*49SS& 49ST		
Frequency Range(F0)	3.45 to 40.00MHz	28.00 to 45.00MHz	30.00 to 80.00MHz
Vibration Mode	AT cut,Fundamental	BT cut,Fundamental	AT cut, 3rd overtone
Equivalent Series Resistance(Rs)	See Table NO. 1		
Frequency Tolerance@ 25±3°C (Δ F/F0)	±2.5 ~ ±50 PPM		
Frequency Stability@T _{OPR} (TC)	AT CUT See Table NO.2	BT CUT	±50PPM @0°C ~ +50°C
			±100PPM @ -10°C ~ +60°C
			±125PPM @ -20°C ~ +70°C
Shunt Capacitance(C0)	7.0PF Max		
Load Capacitance(CL)	9.0~ 50.0PF or series		
Insulation Resistance(IR)	> 500MO at DC 100V±15V		
Drive Level(DL)	10.0 ~ 500.0μW		
Aging(Fa)	±2 ~ ±5PPM /Year		

● Table NO.1 : Equivalent Series Resistance(ESR) and Vibration Mode:

Frequency Range(MHz)	Vibration Mode	ESR(O)	Frequency Range(MHz)	Vibration Mode	ESR(O)
3.45 to 3.99	AT Fundamental	150	24.00 to 40.00	AT Fundamental	30
4.00 to 5.99	AT Fundamental	100	28.00 to 45.000	BT Fundamental	30
6.00 to 7.99	AT Fundamental	80	30.00 to 39.99	AT cut, 3rd overtone	50
8.00 to 15.99	AT Fundamental	60	40.00 to 59.99	AT cut, 3rd overtone	70
16.00 to 23.99	AT Fundamental	40	60.00 to 80.00	AT cut, 3rd overtone	100

● Table NO.2: Frequency Stability Over Operating Temperature Range:

Operating Temperature Range(T _{OPR})	Frequency Stability						
	±2.5PPM	±5PPM	±10PPM	±15PPM	±20PPM	±30PPM	±50PPM
0 to +50°C	★	★	★	★	★	★	★
-10 to +60°C		★	★	★	★	★	★
-20 to +70°C			★	★	★	★	★
-30 to +85°C					★	★	★
-40 to +90°C						★	★

■ DIMENSIONS:

