



X49U, X49T

- ◆ Excellent frequency-temperature characteristics extending across a wide temperature range.
- ◆ Low cost
- ◆ High quality quartz crystal units for PC, Micro-processor, communication.

Table1 Specifications

Parameter	X49U	X49T
Frequency Range	1.8432~200MHz	
Vibration Mode	AT Cut / Fund, 3 rd , 5 th , 7 th Over Tune	
Frequency Tolerance (@25°C±2°C)	±5~±100ppm	
Frequency Stability vs Operation Temperature Range	See Table 2	
Resonance Resistance	See Table 3	
Shunt Capacitance	7pF max	
Load Capacitance	6pF~∞, Series	
Drive Level	2uW~1000uW, 500uW typical	
Insulation Resistance	500MΩ @DC100V	
Aging	±2ppm/year	
Package	49U	49T
Package Option	-MJ: Mounted & Jacket -T: Tape and Reel	-TW: With Top Wire

Table2 Frequency Stability vs Operation Temperature Range(Ref to 25°C) & Option Code

	±3ppm	±5ppm	±10ppm	±20ppm
0~50°C	A03	A05	A10	A20
-10~60°C	B03	B05	B10	B20
-20~70°C		C05	C10	C20
-30~80°C			D10	D20
-40~85°C				E20

Table3 Resonance Resistance

Frequency	Vib.Mode	X49U/T
1.8~3.5MHz	Fund.	400Ω
3.5~5MHz	Fund.	100Ω
5~10MHz	Fund.	40Ω
10~50MHz	Fund.	25Ω
35~120MHz	3 rd O.T.	40Ω
75~200MHz	5 th O.T.	70Ω
100~200MHz	7 th O.T.	100Ω

Thru-Hole Crystals Part Numbering Key

SERIES	CIRCUIT CONDITION	FREQ. TOLERANCE @25°C	MODE	FREQ. STABILIT vs. TEMP	PACKAGE	PACKAGE OPTIONS	FREQUENCY
X49U X49T	S=Series 10P, 12P 15P, 20P 30P, 32P extra	±5~±100ppm	F=Fundamental 3=3 rd O.T. 5=5 th O.T. 7=7 th O.T.	See Table2		See Table1	
X49U	20P	25	F	B25		-TW	32.768MHz
X49T	18P	50	3	C50		-T	45.545MHz

Sample Part Numbers

X49U-20P25-FB25-TW
@32.768Mhz

X49T-18P50-3C50-T
@45.545MHz

