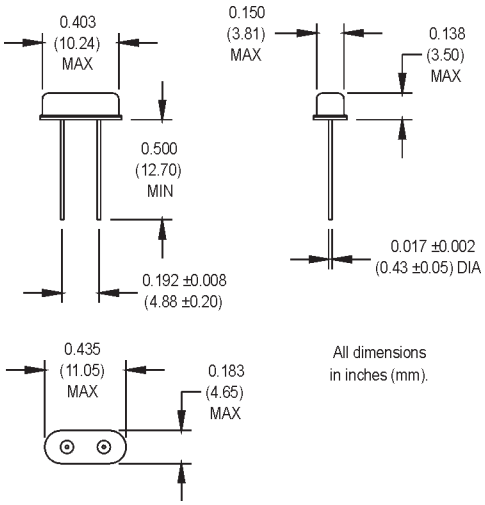
ATS-49 Crystals

***ATS-49 00.0000 MHz** (customer specified)

***ATS-49-R 00.0000 MHz** (RoHS Compliant and customer specified frequency)

M1004Sxxx - Contact factory for datasheet.



Equivalent Series Resistance (ESR), Max.	ATS-49
Fundamental (AT-cut)	
3.579 to 3.999 MHz	200 Ω
4.000 to 4.999 MHz	150 Ω
5.000 to 5.999 MHz	120 Ω
6.000 to 9.999 MHz	100 Ω
10.000 to 13.999 MHz	80 Ω
14.000 to 40.000 MHz	50 Ω
Fundamental (BT-cut)	
24.000 to 50.000 MHz	100 Ω
Third Overtones (AT-cut)	
25.000 to 39.999 MHz	100 Ω
40.000 to 72.000 MHz	80 Ω

MtronPTI ATS-49 Options	
Order by part number listed followed by the desired frequency.	
Part No.	**Description**
397-030	Fundamental, 20pF load, ±30 ppm tolerance, ±50 ppm stability, -10°C to +70°C operating temperature
397-040	Fundamental, series resonant, -10°C to +70°C operating temperature
397-310	Fundamental, 18pF load, -40°C to +85°C operating temperature
482-010	Fundamental, base insulator
482-040	Fundamental, series resonant, base insulator
482-740	Fundamental, series resonant, -40°C to +85°C operating temperature
483-240	3rd overtone, series resonant, ±30 ppm tolerance, ±50 ppm stability, -40°C to +85°C operating temperature
493-040	3rd overtone, series resonant
Balance of specifications same as shown in "Electrical Specifications"	
Contact the factory for options not listed above.	

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Electrical Specifications	**Frequency Range**	F	3.579545		72	MHz	
	Frequency Tolerance	F/F	-30		+30	ppm	
	Frequency Stability	ΔF/F	-50		+50	ppm	See Note 1
	Operating Temperature	T_A	-10		+70	℃	
	Storage Temperature	T_S	-55		+125		℃
	Aging Per Year			±5	±5		
	Load Capacitance	C_L		18		pF	See Note 2
	Shunt Capacitance	C_O			7	pF	
	ESR		See ESR Table				
	Drive Level	D_L	25	100	500	µW	
	Insulation Resistance	I_R	500			MOhms	
Environmental	**Mechanical Shock**	MIL-STD-202, Method 213, C (100 g's)					
	Vibration	MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
	Thermal Cycle	MIL-STD-883, Method 1010, B (-55°C to 125°C, 15 min dwell, 10 cycles)					
	Hermeticity	MIL-STD-202, Method 112 (must meet 1 x 10-8)					
	Solderability	Per EIAJ-STD-002					
	Max Wave Soldering Conditions	+260℃ for 10 secs. Max.					

Note 1: BT cut fundamentals from 24.000 to 40.000 MHz have a stability of ±100 ppm
Note 2: Series resonant designated "SR" prefix (i.e., SRATS-49)