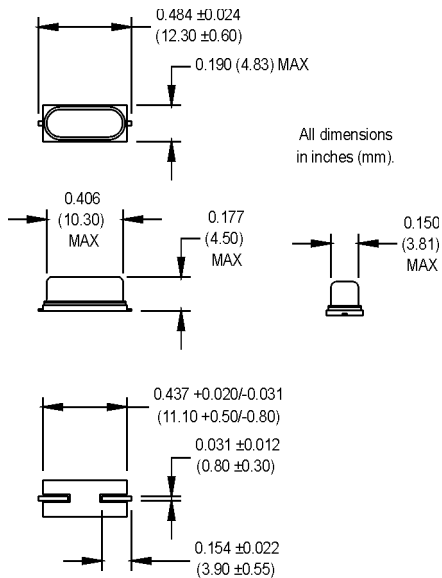


ATSM-49 and SX2050 Surface Mount Crystals

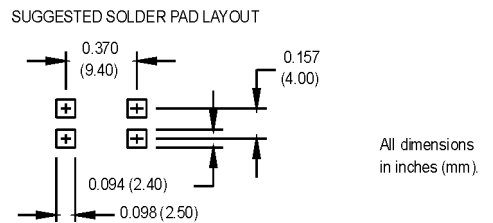
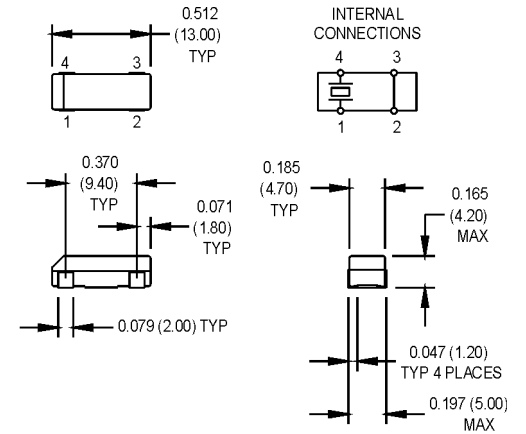


***SX2050-R 00.0000 MHz** (customer specified)
(-R signifies RoHS compliant part)

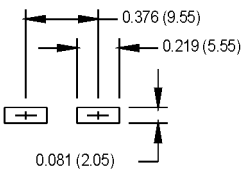
***ATSM-49-R 00.0000 MHz** (customer specified)
(-R signifies RoHS compliant part)



Equivalent Series Resistance (ESR), Max. Fundamental (AT-cut)	Sx2050
3.579 to 3.999 MHz	200 Ω
4.000 to 4.499 MHz	150 Ω
4.500 to 4.999 MHz	120 Ω
5.000 to 6.999 MHz	100 Ω
7.000 to 8.999 MHz	80 Ω
9.000 to 9.999 MHz	60 Ω
10.000 to 12.999 MHz	50 Ω
13.000 to 18.999 MHz	35 Ω
19.999 to 30.000 MHz	25 Ω
Fundamental (BT-cut)	
30.000 to 40.000 MHz	30 Ω
Third Overtones (AT-cut)	
36.000 to 60.000 MHz	80 Ω



SUGGESTED SOLDER PAD LAYOUT



Equivalent Series Resistance (ESR), Max. Fundamental (AT-cut)	ATSM-49
3.579 to 3.999 MHz	200 Ω
4.000 to 4.499 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

Notes:

Series resonant designated by "SR" prefix (i.e., SRATSM-49 or SRSX2050).

Because this product is based on AT-strip technology, not all frequencies in the range stated are available. Contact the factory for availability of specific frequencies.

ATSM-49

BT cut fundamentals from 24.000 to 40.000 MHz have a stability of ±100 ppm.

PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Frequency Range	F	3.579545		72	MHz	ATSM-49
		3.579545		60	MHz	SX2050
Frequency Tolerance	F/F			±30	ppm	ATSM-49
				±50	ppm	SX2050
Frequency Stability	ΔF/F			±50	ppm	ATSM-49
				±100	ppm	SX2050
Operating Temperature	T _A	-10		+70	°C	ATSM-49
		-20		+70	°C	SX2050
Storage Temperature	T _s				°C	
Aging						
1st Year						
Thereafter (per year)						
Load Capacitance	C _L		18		pF	
Shunt Capacitance	C ₀			7	pF	ATSM-49
				5	pF	SX2050
ESR		See ESR Tables				
Drive Level	D _L			500	μW	ATSM-49
				100	μW	SX2050
Insulation Resistance	I _r	500			MΩ	

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.

Revision: 7-14-06