

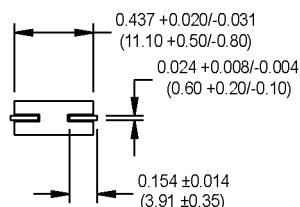
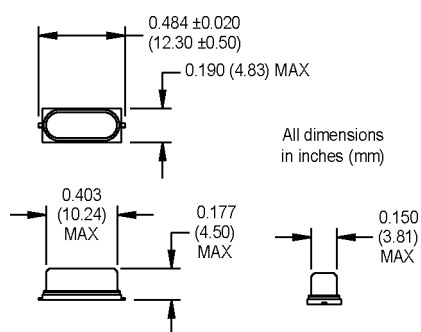
ATSM-49 Surface Mount Crystals



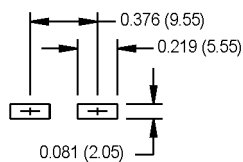
Electrical Specifications

PARAMETERS	VALUE
Frequency Range ¹	3.579545 to 72.000 MHz
Tolerance @ +25°C	±30 ppm
Stability	±50 ppm
Aging	±5 ppm/yr. Max.
Shunt Capacitance	7 pF Max.
Load Capacitance	18 pF Std.
Standard Operating Conditions	-10°C to +70°C
Equivalent Series Resistance (ESR), Max.	
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
Drive Level	500 μW Max.
Holder	HC-49/S - SMD

*ATSM-49 00.0000 MHz (customer specified)



SUGGESTED SOLDER PAD LAYOUT



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

¹ 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.

BT cut fundamentals from 24.000 to 40.000 MHz have a stability of ±100 ppm. See page 136, Figure "1" for suggested solder profile.

M-tron ATSM-49 Options

Order by part number listed followed by the desired frequency.

Part No.	Description
520-010	Fundamental frequencies, -20°C to +70°C operating temperature
520-230	Fundamental frequencies, 20 pF load capacitance
520-260	Fundamental frequencies, 32 pF load capacitance
520-930	3rd overtone frequencies, 20 pF load capacitance
520-960	3rd overtone frequencies, 32 pF load capacitance
522-210	Fundamental frequencies, -40°C to +85°C operating temperature
522-215	3rd overtone frequencies, -40°C to +85°C operating temperature

Balance of specifications same as shown in "Electrical Specifications".
Contact the factory for options not listed above.

M-tron 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. No rights under any patent accompany the sale of such product.

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