

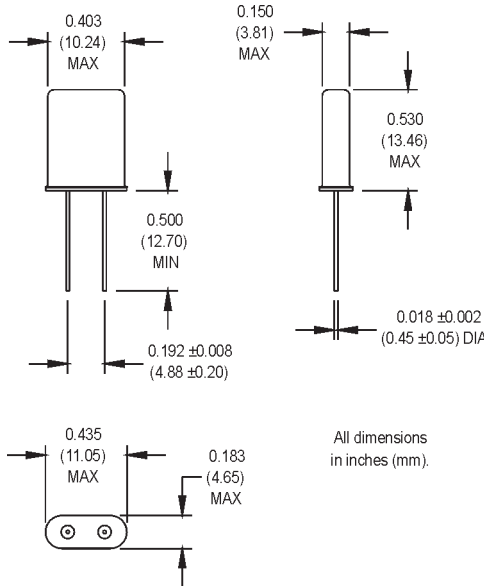
MP-1 Crystals

THIS PRODUCT IS NOT RECOMMENDED FOR NEW DESIGNS.



Order by:
MP-1-R (HC-49/U) 00.0000 MHz (Frequency)

Custom P/N:
M1002Sxxx - Contact factory for datasheet



Equivalent Series Resistance (ESR), Max.	MP-1
Fundamental (AT-cut)	
1.8432 to 1.999 MHz	700 Ω
2.000 to 2.399 MHz	600 Ω
2.400 to 3.299 MHz	400 Ω
3.300 to 3.569 MHz	140 Ω
3.570 to 3.999 MHz	100 Ω
4.000 to 5.999 MHz	75 Ω
6.000 to 7.999 MHz	50 Ω
8.000 to 10.999 MHz	40 Ω
11.000 to 14.999 MHz	30 Ω
15.000 to 19.999 MHz	25 Ω
20.000 to 34.000 MHz	25 Ω
Third Overtones (AT-cut)	Note 2
20.000 to 49.999 MHz	40 Ω
50.000 to 75.000 MHz	50 Ω
Fifth Overtones (AT-cut)	Note 3
50.000 to 125.000 MHz	90 Ω
Seventh Overtones (AT-cut)	Note 4
125.000 to 200.000 MHz	150 Ω

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes	
Electrical Specifications	Frequency Range	F	1.8432		200	MHz		
	Frequency Tolerance	F/F	-30		+30	ppm		
	Frequency Stability	ΔF/F	-50		+50	ppm		
	Operating Temperature	T _A	-10		+70	°C		
	Storage Temperature	T _S	-55		+125	°C		
	Aging Per Year			±5	±5			
	Load Capacitance	C _L		18		pF	See Note 1	
	Shunt Capacitance	C _O			7	pF		
	ESR			See ESR Table				
	Drive Level	D _L	50	100	1000	μW		
Insulation Resistance	I _R	500			MΩ			
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 (1 x 10 ⁻⁸ atmcc/sec. min.)						
	Solderability	Per EIAJ-STD-002						
Max Wave Soldering Conditions	+260°C for 10 secs. Max.							

Note 1: Series resonant designated "SR" prefix (i.e., SRMP-1-R)
 Note 2: Order by P/N 302-000-R-Frequency
 Note 3: Order by P/N 309-000-R-Frequency. This is a series resonant part.
 Note 4: Order by P/N 320-000-R-Frequency. This is a series resonant part.

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.

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