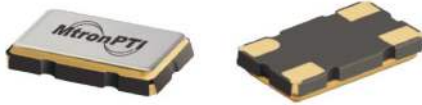


PP Surface Mount Crystals

3.5 x 6.0 x 1.2 mm

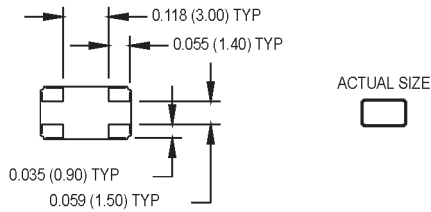
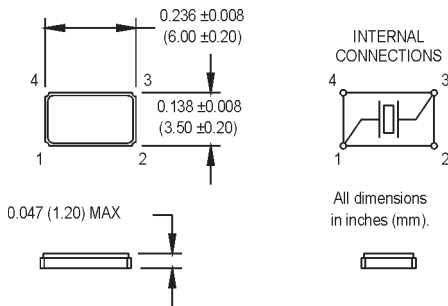


- Miniature low profile package
- RoHS Compliant
- Wide frequency range
- PCMCIA - high density PCB assemblies

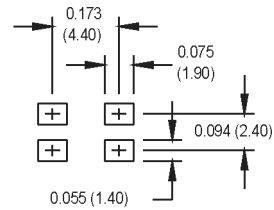
Ordering Information

Product Series	PP	1	M	M	XX	00.0000
Temperature Range	1: 0°C to +70°C		2: -10°C to +60°C			
	3: -20°C to +70°C		4: -30°C to +60°C			
	5: -20°C to +80°C		6: -40°C to +85°C			
Tolerance	D: ±10 ppm		J: ±30 ppm			
	F: ±15 ppm		M: ±50 ppm			
	G: ±20 ppm		H: ±25 ppm			
Stability	C: ±5 ppm		D: ±10 ppm			
	F: ±15 ppm		G: ±20 ppm			
	H: ±25 ppm		J: ±30 ppm			
	M: ±50 ppm		P: ±100 ppm			
Load Capacitance	Blank: 18 pF (std)					
	S: Series Resonant					
	XX: Customer Specified 10 pF to 32 pF					
Frequency (customer specified)						

M1003Sxxx - Contact factory for datasheet.



SUGGESTED SOLDER PAD LAYOUT



Available Stabilities vs. Temperature

T \ S	D	F	G	J	M
1	A	A	A	A	A
2	N	N	A	A	A
3	A	A	A	A	A
6	N	N	A	A	A

A = Available
N = Not Available

PARAMETERS	VALUE	
Frequency Range*	10.000 to 180.000 MHz	
Tolerance @ +25°C	See ordering information	
Stability	See ordering information	
Aging	±2 ppm/yr Max	
Shunt Capacitance	5 pF Max.	
Load Capacitance	See ordering information	
Standard Operating Conditions	See ordering information	
Equivalent Series Resistance (ESR), Max.	Fundamental (AT-cut)	
	10.000 to 12.999 MHz	80 Ω Max.
	13.000 to 13.999 MHz	50 Ω Max.
	14.000 to 19.999 MHz	40 Ω Max.
	20.000 to 45.000 MHz	30 Ω Max.
	Third Overtones (AT-cut)	
40.000 to 150.000 MHz	50 Ω Max.	
Fifth Overtones (AT-cut)		
100.000 to 180.000 MHz	90 Ω Max.	
Drive Level	100 μW Max, 50 μW Typ, 10 μW Min	
Mechanical Shock	MIL-STD-202, Method 213, C	
Vibration	MIL-STD-202, Method 201 & 204	
Thermal Cycle	MIL-STD, Method 1010, B	
Max Soldering Conditions	See solder profile, Figure 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.

MtronPTI Lead Free Solder Profile

