

M1253 Surface Mount Crystal

2.5 x 3.2 x 0.65 mm



Features:

- Ultra-Miniature Size
- Tape & Reel
- Leadless Ceramic Package - Seam Sealed

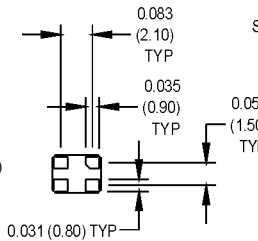
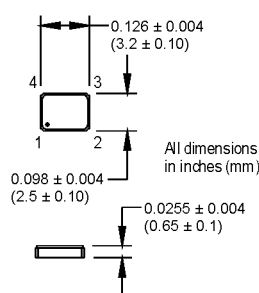
Applications:

- Handheld Electronic Devices
- PDA, GPS, MP3
- Portable Instruments
- PCMCIA Cards
- Bluetooth

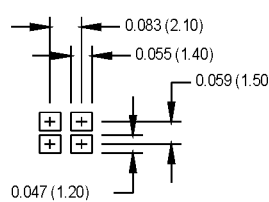


Ordering Information

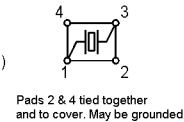
Product Series	M1253	1	J	M	XX	00.0000	MHz
Operating Temperature							
1: -10°C to +70°C (std)							
2: -40°C to +85°C							
3: -10°C to +60°C							
6: -20°C to +70°C							
Tolerance @ +25°C							
D: ±10 ppm							J: ±30 ppm (std)
E: ±15 ppm							M: ±50 ppm
G: ±20 ppm							P: ±100 ppm
H: ±25 ppm							
Stability							
D: ±10 ppm							J: ±30 ppm
E: ±15 ppm							M: ±50 ppm (std)
G: ±20 ppm							P: ±100 ppm
H: ±25 ppm							
Load Capacitance							
Blank: 18 pF (std)							
S: Series Resonant							
XX: Customer Specified 8 pF to 32 pF							
Frequency (customer specified)							



SUGGESTED SOLDER PAD LAYOUT



INTERNAL CONNECTIONS



Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency Range	F	13		54	MHz	
Frequency Tolerance	F/F	See Ordering Information			ppm	+25°C
Frequency Stability	F/F	See Ordering Information			ppm	Over Operating Temperature
Operating Temperature	T _{opr}	See Ordering Information			°C	
Storage Temperature	T _{stg}	-55		+125	°C	
Aging	F _a			±5	ppm/yr	+25°C
Load Capacitance	C _L					See Ordering Information
Shunt Capacitance	C ₀				3	pF
ESR						
Fundamental AT-Cut Frequencies						
13.000000 to 19.999999 MHz				80	Ohms	All
20.000000 to 29.999999 MHz				70	Ohms	All
30.000000 to 54.000000 MHz				50	Ohms	All
Drive Level	D _L	10	100	300	μW	
Insulation Resistance	I _R	500			Megohms	100 VDC
Aging	Internal Specification					168 hrs. at +55°C
Physical Dimensions	MIL-STD-883, Method 2016					
Shock	MIL-STD-202, Method 213 Condition C					100 g
Vibration	MIL-STD-202, Methods 201 & 204					10 g from 10-2000 Hz
Thermal Cycle	MIL-STD-883, Method 1010, Condition B					-55°C to +125°C
Gross Leak	MIL-STD-202, Method 112					30 sec. Immersion
Fine Leak	MIL-STD-202, Method 112					1 x 10 ⁻¹⁸ atmcc/sec. min.
Resistance to Solvents	MIL-STD-883, Method 2015					Three 1 minute soaks
Reflow Solder Conditions	MIL-STD-202, Method 210, Condition C					Pb Free = +260°C for 10 secs. max

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.

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