

M1253 Surface Mount Crystal

2.5 x 3.2 x 0.8 mm



Features:

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

Applications:

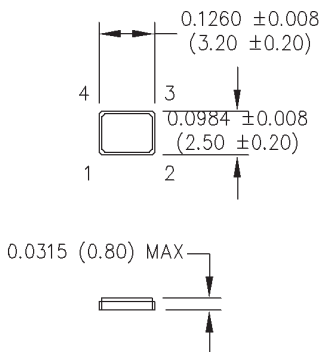
- Handheld Electronic Devices
- PDA, GPS, MP3
- Portable Instruments
- PCMCIA Cards
- Bluetooth



Ordering Information

Product Series	M1253	6	J	M	XX	00.0000
Operating Temperature	1: -10°C to +70°C	3: -10°C to +60°C				MHz
	2: -40°C to +85°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)						

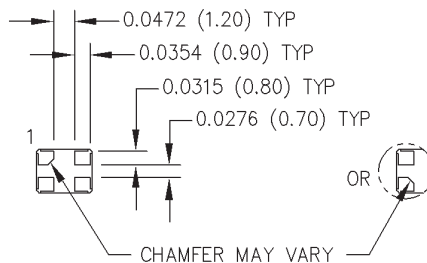
M1253Sxxx - Contact factory for datasheet.



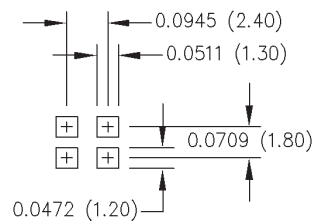
(TOP VIEW)
INTERNAL
CONNECTIONS

(2 & 4 connected
thru metal cover)

All dimensions
in inches (mm).



SUGGESTED SOLDER PAD LAYOUT



	Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions	
Electrical Specifications	Frequency Range	F	12		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	
Environmental	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 ⁻⁸ atmcc/sec. min.
	Resistance to Solvents	MIL-STD-883, Method 2015						Three 1 minute soaks
Max Soldering Conditions	See solder profile, Figure 1							

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

MtronPTI Lead Free Solder Profile

