

# M1253 Surface Mount Crystal

## 2.5 x 3.2 x 0.65 mm



### Features:

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

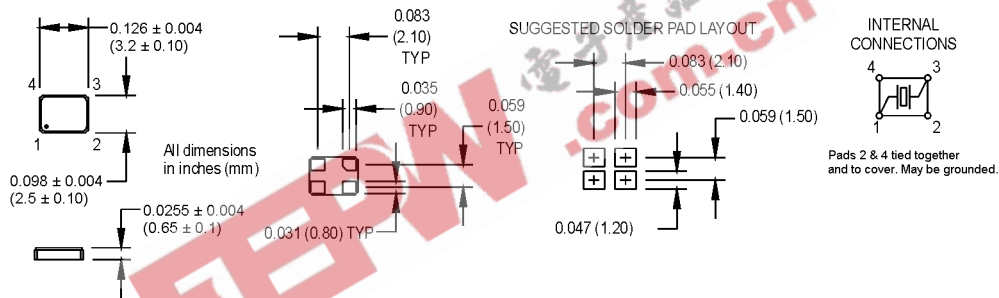


### Applications:

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

### Ordering Information

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



	Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions	
Electrical Specifications	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 <sub>opr</sub>	See Ordering Information			°C		
	Storage Temperature	T <sub>stg</sub>	-55		+125	°C		
	Aging	F <sub>a</sub>			±5	ppm/yr	+25°C	
	Load Capacitance	C <sub>L</sub>					See Ordering Information	
	Shunt Capacitance	C <sub>0</sub>			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 <sub>L</sub>	10	100	300	μW		
	Insulation Resistance	I <sub>R</sub>	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 <sup>-8</sup> atmcc/sec. min.
	Resistance to Solvents	MIL-STD-883, Method 2015						Three 1 minute soaks

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# MtronPTI Lead Free Solder Profile

