

# M1254 Surface Mount Crystal

## 2.5 x 4.0 x 0.75 mm



### Features:

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



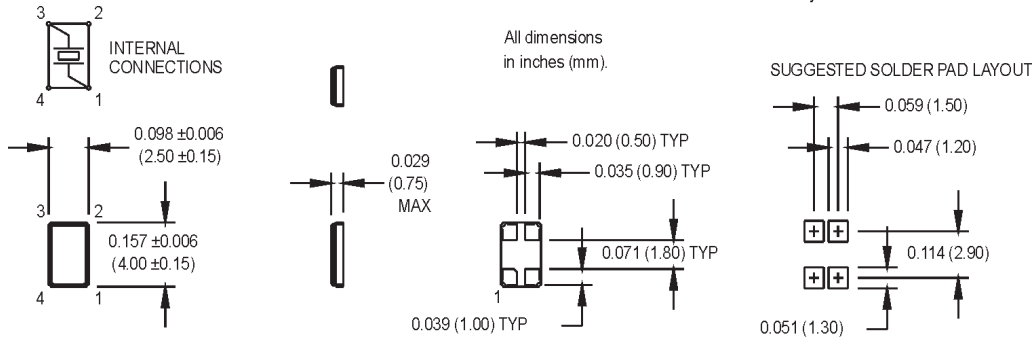
### Applications:

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

### Ordering Information

	<b>M1254</b>	<b>6</b>	<b>J</b>	<b>M</b>	<b>XX</b>	<b>00.0000</b>	<b>MHz</b>
<b>Product Series</b>							
<b>Operating Temperature</b>							
1: -10°C to +70°C							3: -10°C to +60°C
2: -40°C to +85°C							6: -20°C to +70°C
<b>Tolerance @ +25°C</b>							
*D: ±10 ppm							J: ±30 ppm (std)
E: ±15 ppm							M: ±50 ppm
G: ±20 ppm							P: ±100 ppm
H: ±25 ppm							
<b>Stability</b>							
*D: ±10 ppm							J: ±30 ppm
E: ±15 ppm							M: ±50 ppm (std)
G: ±20 ppm							P: ±100 ppm
H: ±25 ppm							
<b>Load Capacitance</b>							
Blank: 18 pF (std)							
S: Series Resonant							
XX: Customer Specified 10 pF to 32 pF							
<b>Frequency (customer specified)</b>							

\* Consult Factory  
M1254Sxxx - Contact factory for datasheet.



	Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions	
Electrical Specifications	Frequency Range	F	12		32	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>			±2	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							
	12.000000 to 19.999999 MHz			80	Ohms	All		
	20.000000 to 25.999999 MHz			70	Ohms	All		
	26.000000 to 32.000000 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
Maximum Soldering Conditions	See solder profiles, Figure 1							

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](http://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

