

# 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

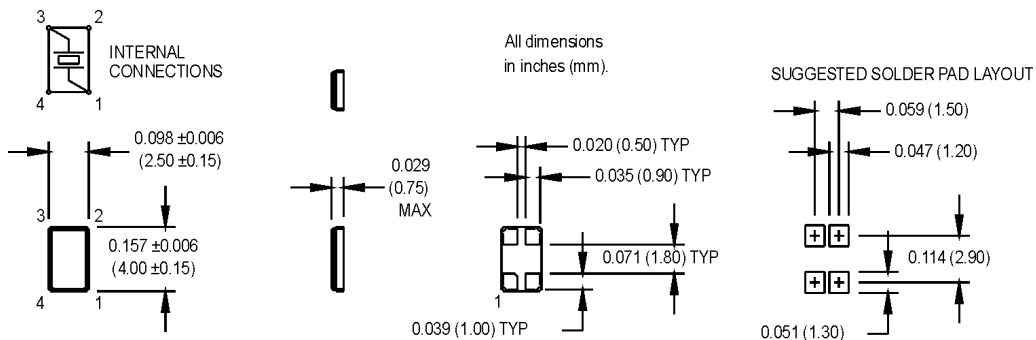
### Applications:

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



### Ordering Information

<b>Product Series</b>	M1254	6	J	M	XX	00.0000 MHz
<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 J: ±30 ppm (std) M: ±50 ppm P: ±100 ppm					
<b>Stability</b>	D: ±10 ppm E: ±15 ppm G: ±20 ppm H: ±25 ppm J: ±30 ppm M: ±50 ppm (std) P: ±100 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>						



Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions	
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	
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	MIL-STD-202, Method 210, Condition C					Pb Free = +260°C for 10 secs. max	

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# MtronPTI Lead Free Solder Profile

