



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

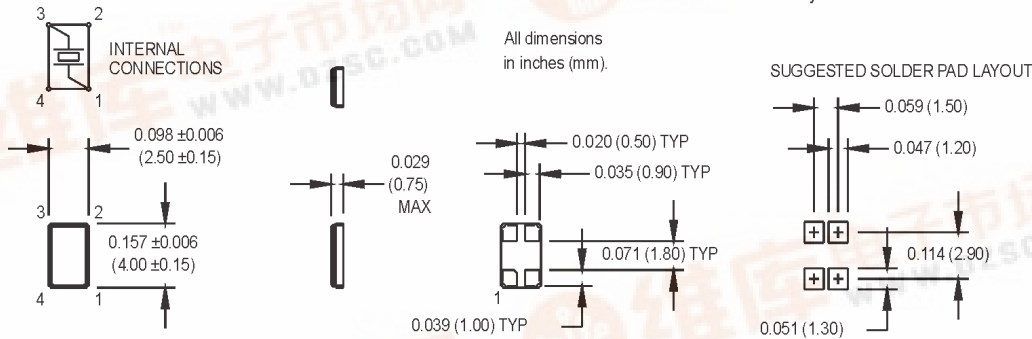


Applications:

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

Ordering Information		M1254	6	J	M	XX	00.0000 MHz
Product Series							
Operating Temperature							
1: -10°C to +70°C		3: -10°C to +60°C					
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 10 pF to 32 pF							
Frequency (customer specified)							

*Consult Factory
M1254Sxxx - Contact factory for datasheet.



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 _{opr}	See Ordering Information			°C		
Storage Temperature	T _{stg}	-55		+125	°C		
Aging	F _a			±2	ppm/yr	+25°C	
Load Capacitance	C _L					See Ordering Information	
Shunt Capacitance	C ₀			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 _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	
Maximum Soldering Conditions	See solder profiles, Figure 1						



MtronPTI Lead Free Solder Profile

