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
- **2:** -40°C to +85°C
- **3:** -10°C to +60°C
- **6:** -20°C to +70°C

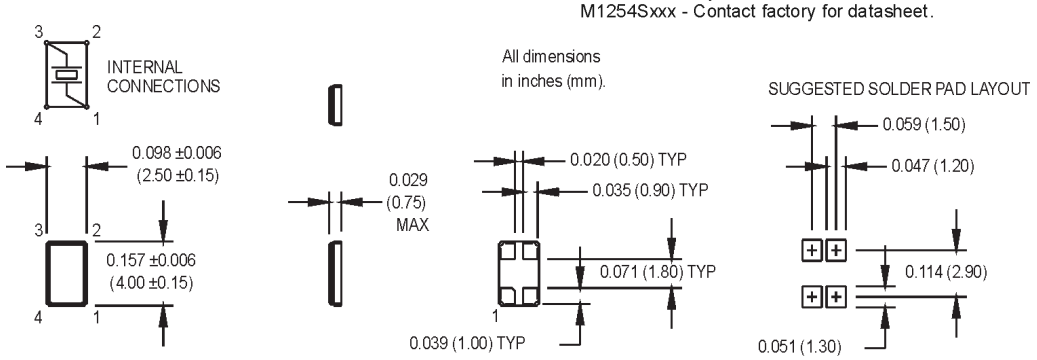
Tolerance @ +25°C
- ***D:** ±10 ppm
- **E:** ±15 ppm
- **G:** ±20 ppm
- **H:** ±25 ppm
- **J:** ±30 ppm (std)
- **M:** ±50 ppm
- **P:** ±100 ppm

Stability
- ***D:** ±10 ppm
- **E:** ±15 ppm
- **G:** ±20 ppm
- **H:** ±25 ppm
- **J:** ±30 ppm
- **M:** ±50 ppm (std)
- **P:** ±100 ppm

Load Capacitance
- **Blank:** 18 pF (std)
- **S:** Series Resonant
- **XX:** Customer Specified 10 pF to 32 pF

Frequency (customer specified)

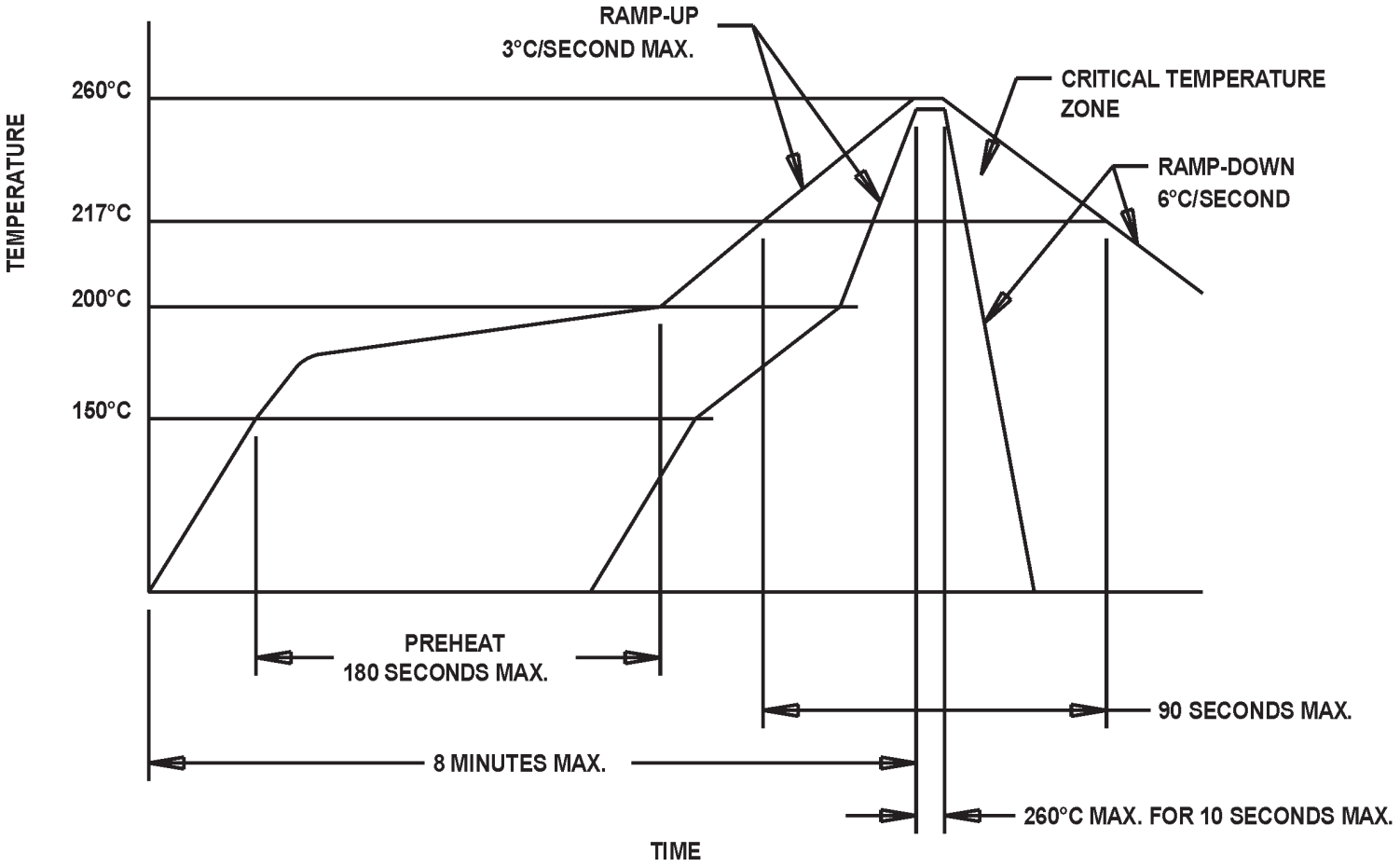
*Consult Factory
M1254Sxxx - Contact factory for datasheet.



	Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
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_{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 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.

MtronPTI Lead Free Solder Profile



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** for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI **1-800-762-8800.**