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SPECIFICATION FOR HCMOS SMT OSCILLATOR

MtronPTI P/N: M2532S142

General & Electrical Specifications:

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F _O		49.152000		MHz	
Frequency Stability						
Frequency Stability	ΔF/F	-25		+25	ppm	-40°C to +85°C
		-100		+100	ppm	-55°C to -40°C
Aging		-5		+5	ppm	1 st year @ +25°C
RF Output						
Output Type		CMOS Compatible				
Output Load				15	pF	
Symmetry (duty cycle)	T _{DC}	45	50	55	%	Ref to ½ V _{DD}
Logic "1" Level	V _{OH}	90% V _{DD}			V	HCMOS load
Logic "0" Level	V _{OL}			10% V _{DD}	V	HCMOS load
Rise/Fall Time	T _R /T _F			10	ns	From 10% to 90% V _{DD}
Start-Up Time				10	ms	
Tristate Logic "1"		70% V _{DD} or N/C			V	Pad 1: Output Enabled
Tristate Logic "0"				30% V _{DD}	V	Pad 1: Output Disabled to high impedance
Supply Voltage & Power Consumption						
Operating Voltage	V _{DD}	3.135	3.300	3.465	V	
Operating Current	I _{DD}			20	mA	
Other Specifications						
Random Jitter				10.0	ps RMS	1 Sigma

Environmental & Mechanical Requirements:

Operating Temperature	T _A	-40		+85	°C	
Storage Temperature	T _S	-55		+125	°C	
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 ⁻⁸ atm cc/s of Helium)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	4-pad 2.5 X 3.2 X 1.2 mm leadless ceramic. RoHS compliant.					

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Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Tristate
2	Ground
3	Output
4	+V _{DD}

Part Marking	
Line 1	49M152
Line 2	M y m v

Legend	
y	Last digit of year
m	Month letter code
v	Factory code

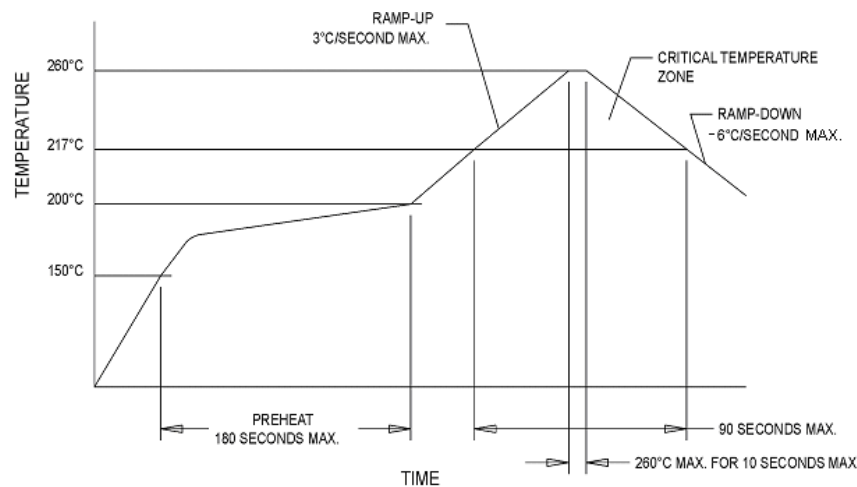
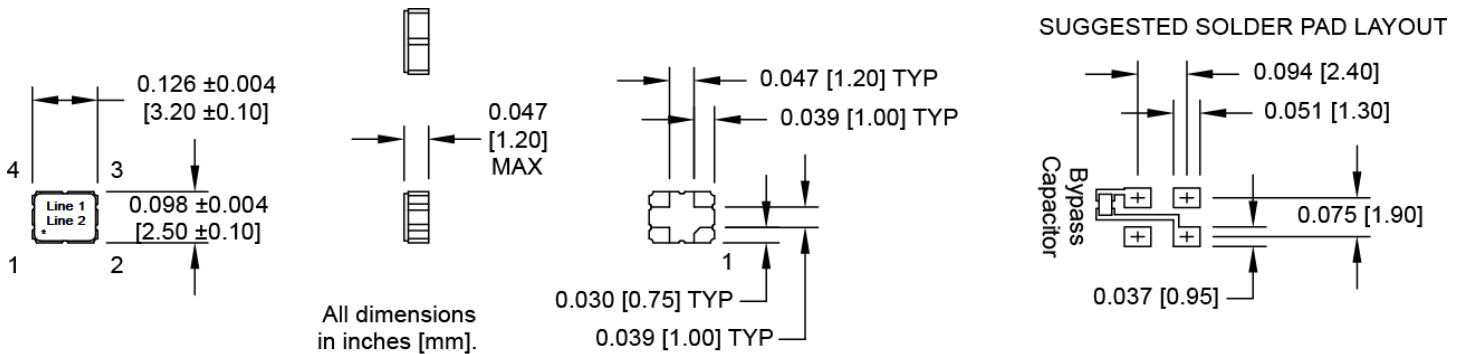


Figure 1

Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
01-28-20	B	BRR	Stability updated.
01-16-20	A	BRR	Original release