

Electrical Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	Fo	1.0		125	MHz	

Frequency Stabilities

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency Stability		See Ordering Information			ppm	
Aging			±3		ppm	1 st year
			±2		ppm/year	Thereafter

RF Output

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Output Type		HCMOS/TTL				
Output Load						
M7S		10 TTL or 50 pF				1.000 to 80.000 MHz
M8S		10 TTL or 15 pF 15 pF				80.001 to 25.000 MHz 1.000 to 125.000 MHz
Symmetry (Duty Cycle)		See Ordering Information			%	½ V _{DD}
Logic "1" Level	V _{OH}	90% V _{DD} V _{DD} - 0.5			V V	HCMOS Load TTL Load
Logic "0" Level	V _{OL}			10% V _{DD} 0.5	V V	HCMOS Load TTL Load
Output Current						
1 to 80 MHz			±16		mA	M7S
80.001 to 125 MHz			±8		mA	M7S
1 to 125 MHz			±4		mA	M8S
Rise/Fall Time						
1 to 40 MHz	T _R /T _F			7/6	ns	M7S/M8S
40.001 to 125 MHz				5/4	ns	M7S/M8S
Tristate Function		Input Logic "1" or floating				Output active
		Input Logic "0"				Output disables to high-Z
Startup Time				10	ms	T _{ambient} = +25°C

Additional Parameters

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Random Jitter (RMS)	R _J		5	12	ps RMS	1.000 to 80.000 MHz
			8	20	ps RMS	80.001 to 125.000 MHz

Operating Voltage and Current

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Supply Voltage	V _{DD}	4.500	5.000	5.500	V	M7S
		3.135	3.300	3.465	V	M8S
Supply Current (frequency dependent)	I _{DD}			85	mA	M7S
				35	mA	M8S

Temperature

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Operating Temperature	OTR	See Ordering Information			°C	
Storage Temperature	STR	-55		+125	°C	

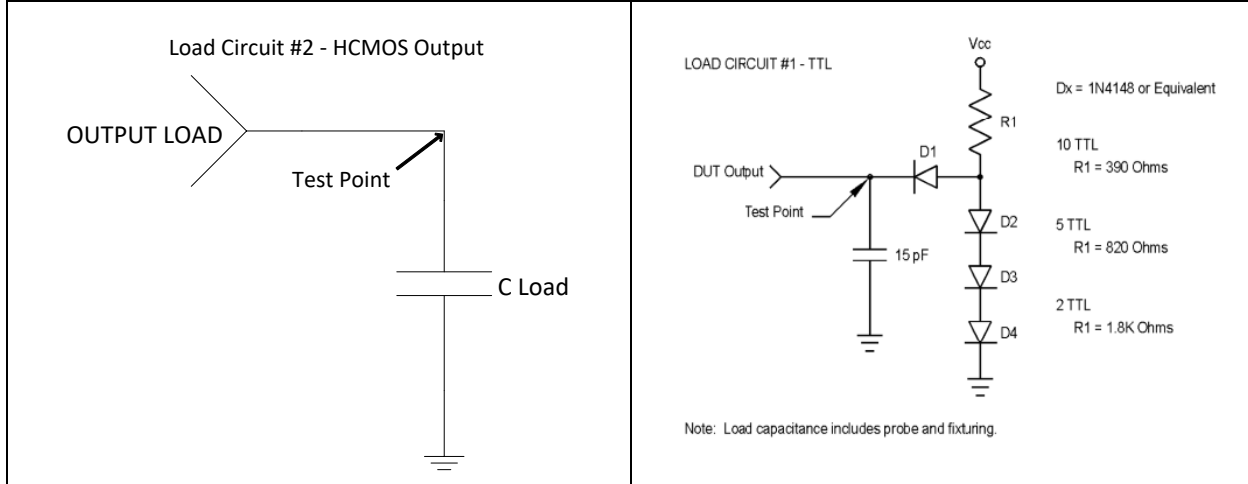
Notes

Features	Applications
Wide operating temperature -55°C to 125°C	Avionics and Aerospace
Operating Voltage 5.0V or 3.3V	Communication and Navigation
MIL-STD-883 Screening	Military Radios
Custom Hi-Rel Screening	Test & Measurement Equipment
9x14 mm "J" Lead Ceramic Package	Instrumentation and Industrial
Resistance Weld Hermetically Sealed	Measurement Equipment
Compliant to RoHS directive	

Environmental Condition

Parameter	Conditions
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)
Mechanical Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)
Hermeticity	MIL-STD-202, Method 112, (1x10 ⁻⁸ atm. cc/s of Helium)
Solderability	EIAJ-STD-002
Max Soldering Conditions	See solder profile, Figure 1

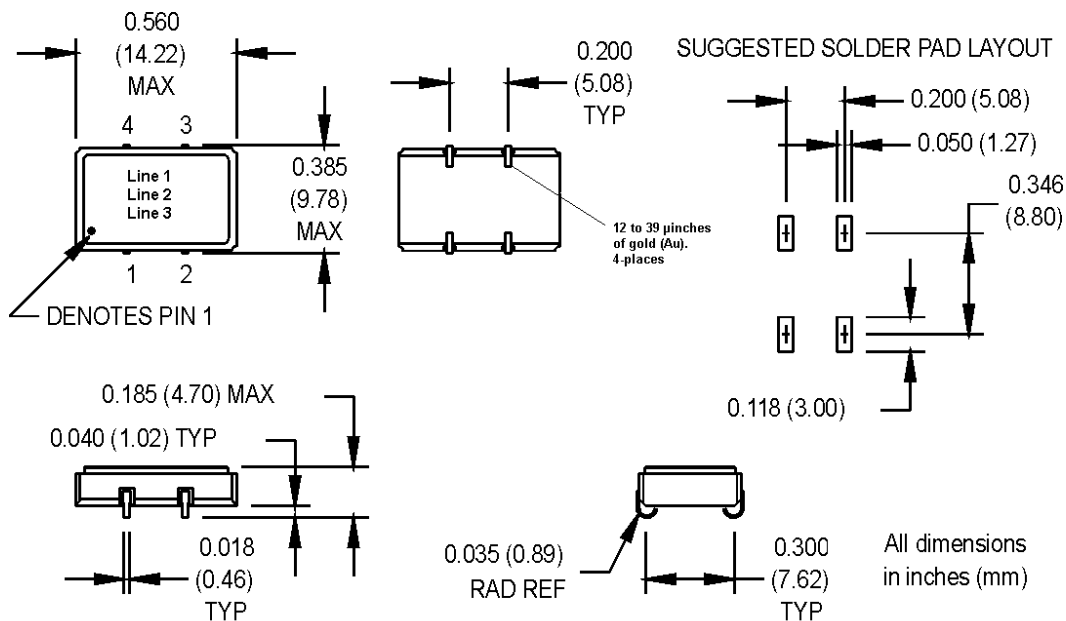
Load Circuit Diagrams



Pin out information

Pad	Function
1	Tristate or N/C
2	Ground
3	Output
4	+V _{DD}

Package Dimensions



Lead Free Solder Profile (-R Option)

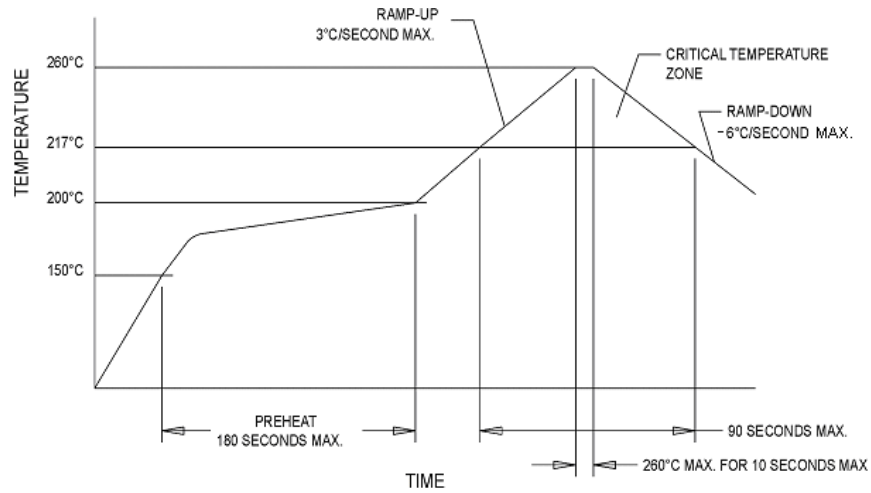
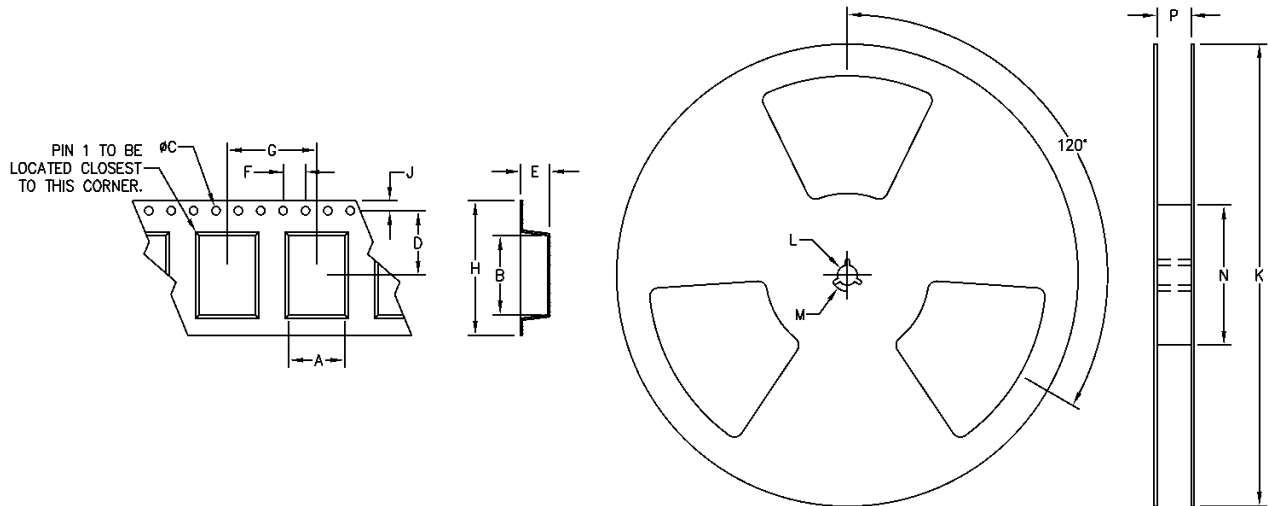


Figure 1

Tape and Reel Specifications



A	B	C	D	E	F	G	H	J	K	L	M	N
10	14.2	1.5	11.5	5	4	16	24	1.75	330	13	20.2	60

Ordering Information

MxS 2 3 T C J -R 00.0000MHz

Product Series	
M7S	5.0 V
M8S	3.3 V

Temperature Range	
1	0°C to +70°C
2	-40°C to +85°C
3	-55°C to +105°C
4	-55°C to +125°C
6	-20°C to +70°C

Stability	
3	± 100 ppm
4	± 50 ppm
5	± 35 ppm
6	± 25 ppm
8	± 20 ppm

Output Type	
F	Fixed
T	Tristate

Frequency (Customer specified)	
00.0000MHz	

Package/Lead Configuration	
Blank	non-RoHS Compliant
-R	RoHS Compliant

Package/Lead Configuration	
J	Gold Flash J-leads
S	Solder Dipped J-leads

Symmetry/Logic compatibility	
A	40/60% HCMOS/TTL
B	45/55% TTL (M7S only, 1 – 65 MHz)
C	45/55% HCMOS
D	45/55% HCMOS/TTL (M7S, 1 – 65 MHz) (M8S, 1 – 100 MHz)

Revision History

11/13/2025 – Revision Date