

MV3 & MV5 Series

5x7 mm, 3.3 or 5.0 Volt, HCMOS, VCXO

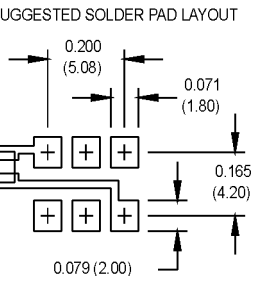
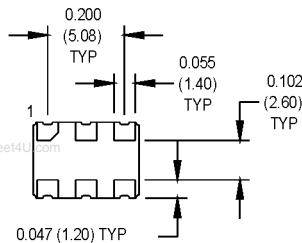
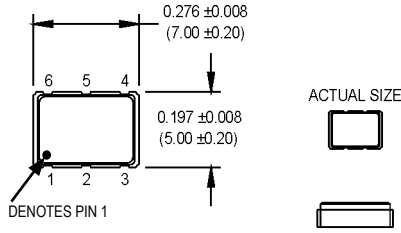


- General purpose VCXO with good performance at an affordable price

Ordering Information

	MV3/MV5	1	3	V	C	N	00.0000	MHz
Product Series	MV3 = 3.3 Volt MV5 = 5.0 Volt							
Temperature Range	1: 0°C to +70°C 2: -40°C to +85°C 6: -20°C to +70°C							
Stability	3: ±100 ppm 4: ±50 ppm 6: ±25 ppm* 8: ±20 ppm*							
Output Type	V: Voltage Controlled - no tristate T: Voltage Controlled - tristate							
Symmetry/Logic Compatibility	C: 45/55 CMOS G: 40/60 CMOS							
Package/Lead Configurations	N: Leadless Ceramic							
Frequency (customer specified)								

*Consult Factory for availability



Pin Connections

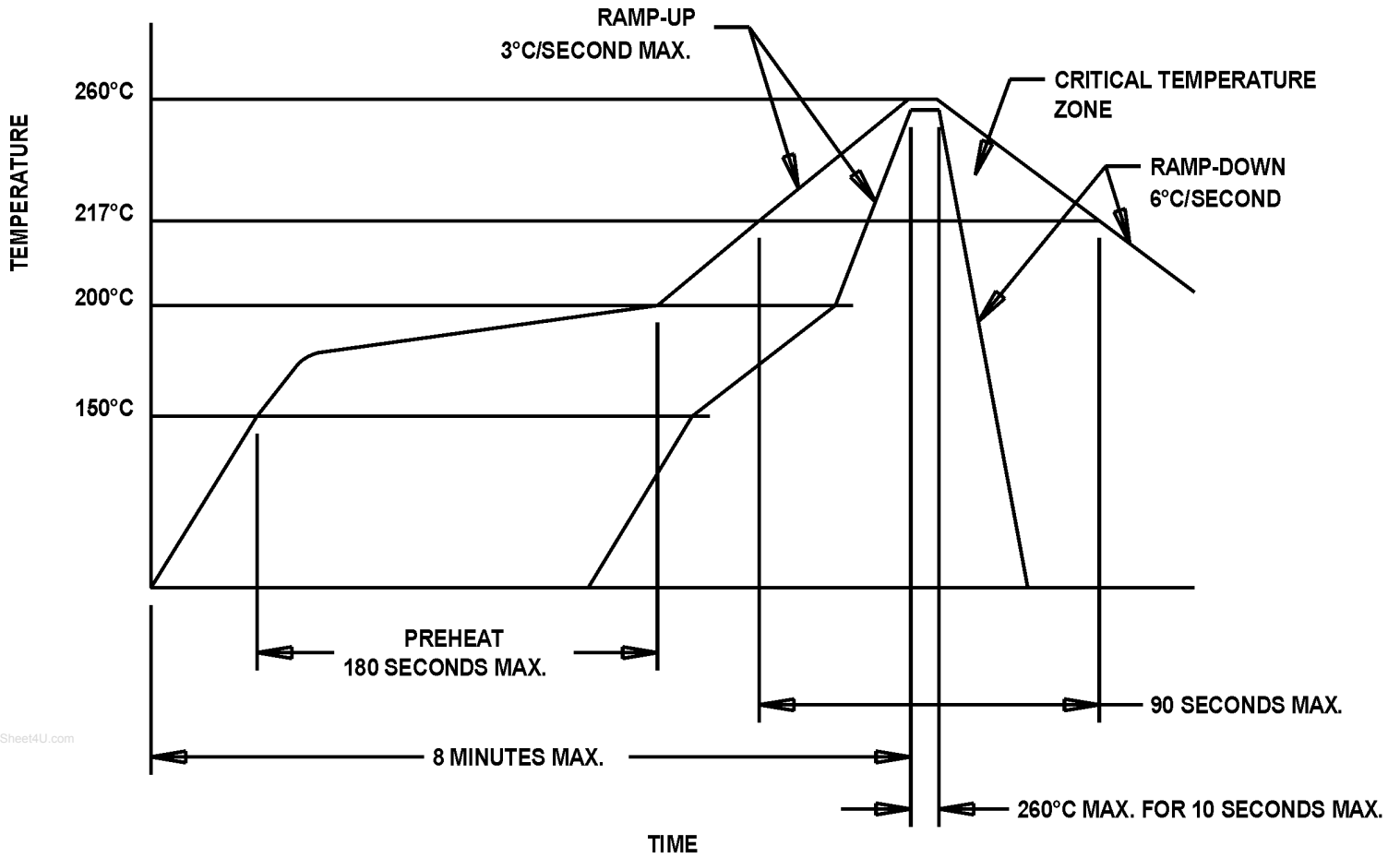
PIN	FUNCTION
1	Control Voltage
2	N/C or Tristate
3	Ground
4	Output
5	N/C
6	+Vdd

PARAMETER	Symbol	Min.	Typ.	Max	Units	Condition/Notes
Frequency Range	F	1.544		167	MHz	MV3 See Note 4 MV5 See Note 4
Operating Temperature	T _A	(See ordering information)				
Storage Temperature	T _S	-45		+95	°C	
Frequency Stability	ΔF/F	(See ordering information)				
Aging						
1 st Year		-3/-5		+3/+5	ppm	< 52 MHz / ≥ 52 MHz
Thereafter (per year)		-1/-2		+1/+2	ppm	< 52 MHz / ≥ 52 MHz
Pullability		±80			ppm	Over control voltage
Control Voltage	V _c	0.3	1.65	3.0	V	MV3
		0.5	2.5	4.5	V	MV5
Linearity				15	%	Positive Monotonic Slope
Modulation Bandwidth	f _m	10			kHz	-3 dB bandwidth
Input Impedance	Z _{in}	50k			Ohms	
Input Voltage	V _{dd}	3.135	3.3	3.465	V	MV3
		4.5	5.0	5.5	V	MV5
Input Current	I _{dd}					
1.544 to 36 MHz				20	mA	MV3
36 to 167 MHz				50	mA	MV3
1.544 to 50 MHz				35	MA	MV5
Output Type						HCMOS
Load				15	pF	See Note 1
Symmetry (Duty Cycle)		(See ordering information)				50% V _{dd} Level
Logic "1" Level	V _{oh}	90			% V _{dd}	HCMOS load
Logic "0" Level	V _{ol}			10	% V _{dd}	HCMOS load
Rise/Fall Time	T _r /T _f					See Note 2
1.544 to 60 MHz				5	ns	MV3
60 to 167 MHz				2	ns	MV3
1.544 to 50 MHz				5	ns	MV5
Tristate Function		Input Logic "1" or floating: output active Input Logic "0": output disables to high-Z				
Start up Time			4		ms	
Phase Jitter	φ _J					See Note 3
20 – 45 MHz		0.5	1.0		ps RMS	Integrated 12 kHz - 20 MHz
45 – 167 MHz		3.0	5.0		ps RMS	Integrated 12 kHz - 20 MHz
Phase Noise (Typical)						Offset from carrier
@ 19.44 MHz	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	dBc/Hz
	-70	-100	-132	-140	-150	

1. See load circuit diagram #2.
2. Rise/Fall times are measured between 10% V_{dd} and 90% V_{dd} with HCMOS load.
3. Contact factory for non-standard jitter requirements.
4. Contact factory for frequencies outside of the ranges shown.

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. www.DataSheet4U.com