



M6066 Series

2.0 x 2.5 mm, TCXO

FEATURES

Clipped Sine Wave Output
Standard Frequencies 12.8; 14.7456; 19.8; 20;
21.25; 25; 25.6.; 26; 27.6;
32; 36; 38.4
Fundamental Crystal Design
Low phase noise

APPLICATIONS

Telecom / Datacom
Industrial Controls
Communications & Navigation
Test Equipment

ORDERING INFORMATION

	M6066	2	K	F	C	N	00.0000 MHz
Product Series M6066 = 3.3V							
Temperature Range 1: 0°C to +70°C 6: -20°C to +70°C 2: -40°C to +85°C		H: -30°C to +85°C					
Stability J: ± 1.0 ppm K: ± 2.0 ppm							
Output Type F: TCXO							
Output Waveform S: Clipped Sine Wave							
Output Waveform N: Leadless Ceramic							
Frequency (Customer Specified)							

Example Part Number: M60662KFCN 12.8000 MHz

08/25/21 Rev. A

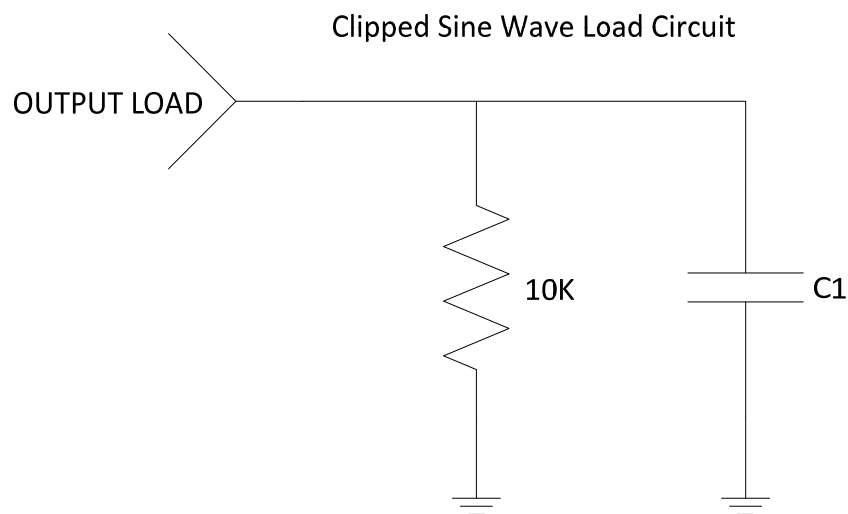
ELECTRICAL SPECIFICATIONS

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Standard Frequencies	F ₀	12.8; 14.7456; 19.8; 20; 21.25; 25; 25.6; 27.6; 32; 36; 38.4			MHz	
Frequency Stabilities						
Initial Accuracy		-2.0		+2.0	ppm	@ +25°C, after two reflow soldering profiles
vs. Operating Temperature	ΔF/F	See ordering information			ppm	
vs. Supply Voltage		-0.3		+0.3	ppm	5% voltage variation
vs. Load		-0.2		+0.2	ppm	10% load variation
vs. Aging		-1.0		+1.0	ppm	Per year, @ +25°C ± 2°C
RF Output						
Output Type		Clipped Sine Wave				
Load Level	V _O P/P	0.8			V	
Output Load				10K 10pF		
Stabilization Time				2.0	ms	Within ±0.5ppm of steady state frequency
Start-up Time	T _{SU}			2	ms	More than 90% of final output voltage
Temperature						
Operating Temperature	T _A	See ordering information			°C	
Storage Temperature	T _S	-40		+105	°C	
Operating Voltage and Current						
Operating Voltage	V _{CC}	3.135	3.300	3.465	V	
Operating Current	I _{CC}			2.5	mA	
Phase Noise						
Phase Noise (measured @ 12.8MHz)			-70		dBc/Hz	@ 1Hz Offset
			-98		dBc/Hz	@ 10Hz Offset
			-125		dBc/Hz	@ 100Hz Offset
			-148		dBc/Hz	@ 1kHz Offset
			-154		dBc/Hz	@ 10kHz Offset
			-155		dBc/Hz	@ 100kHz Offset
			-162		dBc/Hz	@ 1MHz Offset

ENVIRONMENTAL CONDITIONS

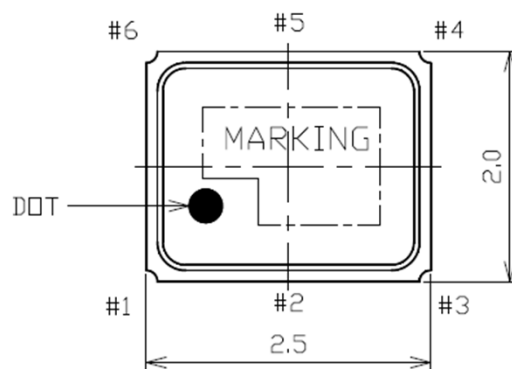
Shock	Half sine wave 6ms, 980 m/s ² . 3 times for each 3 planes.
Vibration	5 to 26Hz: 1.52mm (total amplitude) 26 to 500Hz: 19.6 m/s ² 20 minutes per 1 cycle 2 hours for each 3 planes.
Drop Test	Drop freely on the concrete from the height of 150cm With jig(150g). 3 times for each 6 planes.
Humidity	+60C, 95C, 95% RH for 48H And normal temperature, with normal humidity for 24hrs.

LOAD CIRCUIT DIAGRAMS

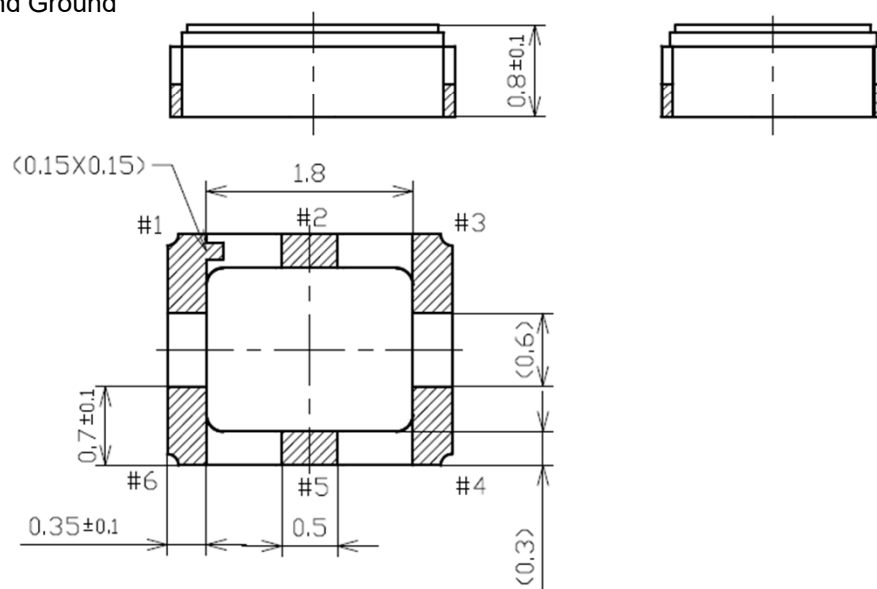


MECHANICAL AND PIN OUT INFORMATION

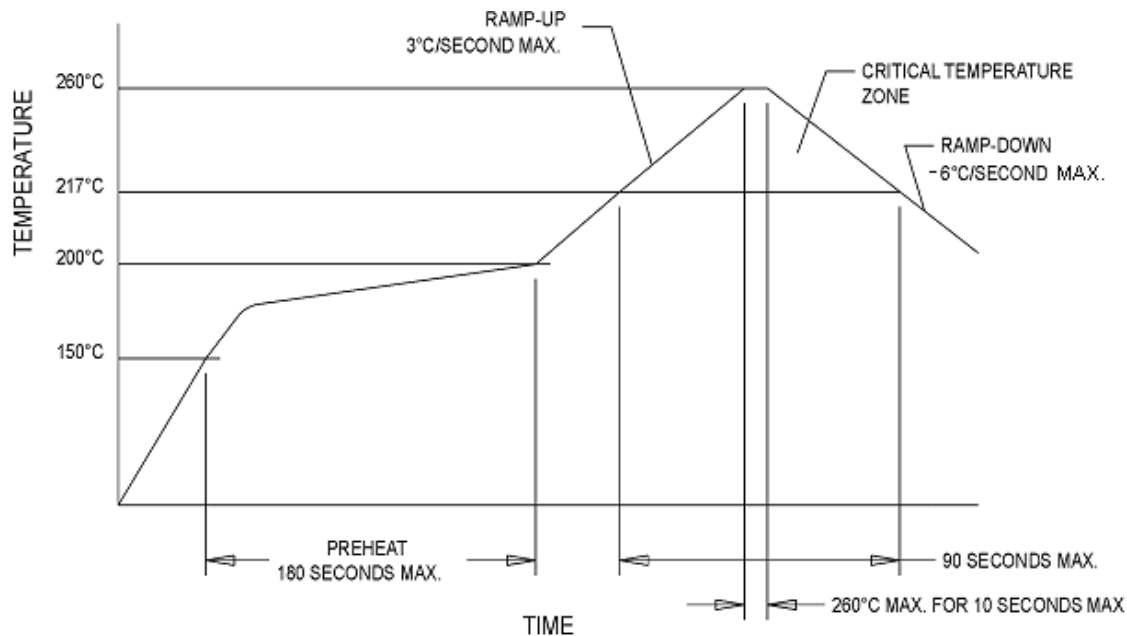
Pad	Function
1	Ground or N/C
2	N/C
3	Ground
4	Output
5	N/C
6	Supply Vcc+



A capacitor value of $0.01\mu\text{F}$ to $0.1\mu\text{F}$ should be placed as close as possible to this device, between +VCC and Ground

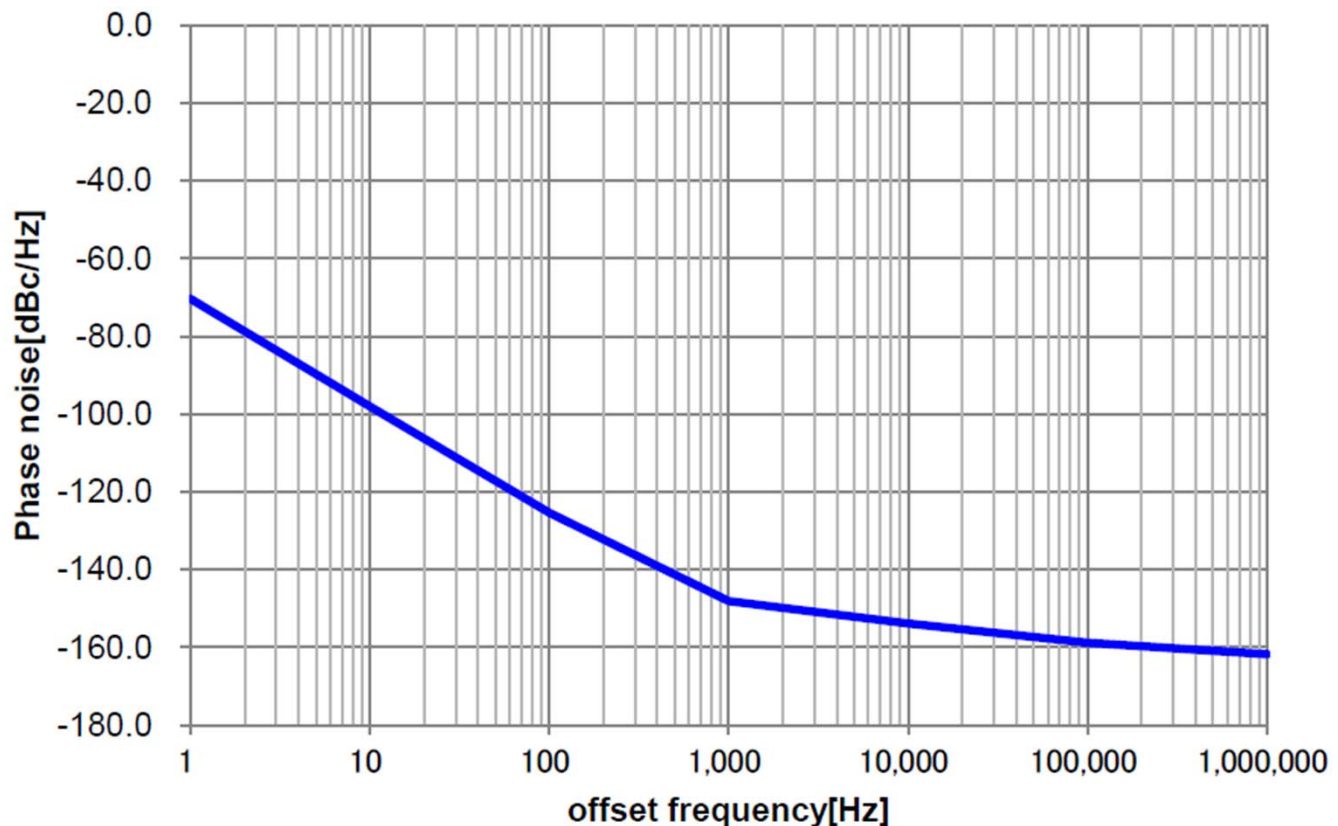


LEAD FREE SOLDER PROFILE



PHASE NOISE PLOT

Phase noise(12.8MHz)



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