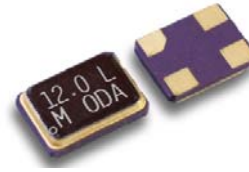


# SMD Clipped Sine wave 2.2 x 2.0 x 0.8 mm



RoHS Compliance

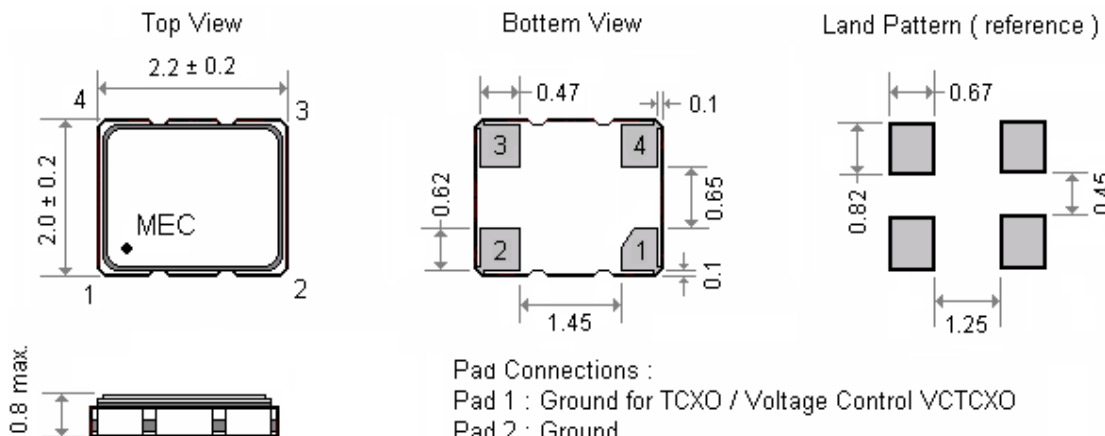
## Features

- Ultra Small SMD seam sealed Temperature Compensated Crystal Oscillator units.

### General Specifications

Parameters		Electrical Spec.							
Input Voltage ( V <sub>DD</sub> )		2.8 V ± 5 %							
Frequency Range		10.0 MHz ~ 40.0 MHz							
Output Wave Form		Clipped Sine wave output							
Output Voltage Level ( peak to peak )		0.8 V p-p ( min. )							
Frequency Stability ( ppm )		± 0.5 ppm	± 1.0 ppm	± 1.5 ppm	± 2.0 ppm	± 2.5 ppm	± 3.0 ppm	± 5.0 ppm	
Frequency Stability vs Temperature	0°C to 50°C	○	○	○	○	○	○	○	
	-10°C to 60°C	△	○	○	○	○	○	○	
	-20°C to 70°C	X	○	○	○	○	○	○	
	-30°C to 75°C	X	○	○	○	○	○	○	
	-40°C to 85°C	X	○	○	○	○	○	○	
○ : available △ : please contact us X : not available									
Frequency Stability	vs Aging	±1 ppm / year max. at 25C							
	vs Voltage Change	± 0.2 ppm max. , for a ±5% input voltage change .							
	vs Load Change	± 0.2 ppm max. , for a ±10% load condition change .							
	vs Reflow ( SMD type )	± 1.0 ppm max. , 1 reflow and measured 24 hours afterwards .							
Current Consumption ( max. )		9.6 ~ 15 MHz	15.01 ~ 26.0 MHz	26.01 ~ 40.0 MHz					
		1.5 mA	2.0 mA	2.5 mA					
Electronical Freq. Tuning ( EFC ) by external control voltage	Control Voltage Center	Standard: +1.5 V ± 1.0 V for all Input voltages.							
	Frequency Deviation Range	± 5.0 ppm ( min. ) , V <sub>control</sub> = +1.5 V ± 1.0 V							
	Linearity	10 % max.							
	Input Impedance	1.0 MΩ min.							
	Modulation Bandwidth	3 KHz min. Measured at -3 dB , V <sub>control</sub> = +1.5 VDC							
Output Load		10 KΩ // 10 pF ± 10%							
Start - Up Time ( T <sub>s</sub> )		2.0 m sec. ( typ. ) , 5.0 m sec. ( max. )							
Output Format		DC block , AC coupled							
Rise Time ( T <sub>r</sub> ) / Fall Time ( T <sub>f</sub> )		10 n sec. ( max. )							
Output Format		DC block , AC coupled.							
Storage Temperature		- 50°C to 100°C							
Aging		± 3 ppm per year ( max. )							
Phase Noise ( typical ) [ 10.000 MHz ]		Offset dBc / Hz	10 Hz	100 Hz	1K Hz	10 KHz	100KHz	1 MHz	10 MHz
			-80	-115	-135	-138	-142	-148	-150

### General Specifications ( Unit : mm )



Pad Connections :  
 Pad 1 : Ground for TCXO / Voltage Control VCTCXO  
 Pad 2 : Ground  
 Pad 3 : Output  
 Pad 4 : Supply Voltage

Mercury [www.mercury-crystal.com](http://www.mercury-crystal.com)