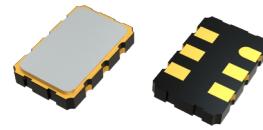


5.0 x 3.2mm SMD Voltage Controlled Crystal Oscillator

Feature

- Typical 5.0 x 3.2 x 1.25 mm 6 pads ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Operating temperature up to 105°C.
- Tri-state enable/disable.



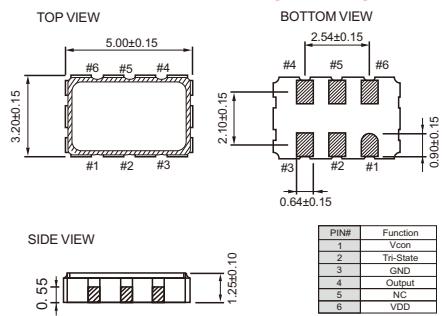
Electrical Specifications

Parameter	3.3V		Unit
	Min.	Max.	
Supply Voltage Variation(VDD)	VDD-5%	VDD+5%	V
Frequency Range	1.5	170	MHz
Standard Frequency	19.44, 38.4		MHz
Absolute Pulling Range (APR)	±50		ppm
Control Voltage Range	0.3	3.0	V
Supply Current	1.5MHz \leq F0 < 20 MHz	10	mA
	20MHz \leq F0 < 50 MHz	20	
	50MHz \leq F0 \leq 170 MHz	30	
Output Level	Output High	2.97	V
	Output Low	0.33	
Transition Time: Rise/Fall Time +	1.5 MHz \leq F0 < 20 MHz	-	nSec
	20 MHz \leq F0 < 50 MHz	-	
	50 MHz \leq F0 \leq 170 MHz	-	
Start Time	-	2	mSec
Tri-State (input to Pin 2)	Enable (High voltage or floating)	2.31	V
	Disable (Low voltage or GND)	-	
Linearity		10	%
Modulation Bandwidth (BW)	15	-	kHz
Input Impedance	10	-	MΩ
Period Jitter (Pk-Pk)	-	40	pSec
RMS Phase Jitter (Integrated 12 kHz ~ 20 MHz)	-	1	
Phase Noise @38.4MHz	100 Hz	-100	dBc/Hz
	1KHz	-133	
	10KHz	-140	
Aging (@ 25°C 1st year)		±3	Ppm
Storage Temp. Range	-55	125	°C

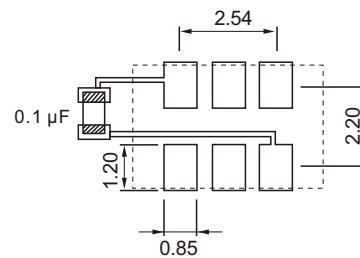
Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position

+ Transition times are measured between 20% and 80% of VDD.

Dimension(mm)



Solder Pad Layout(mm)



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1 μF as close to the part as possible between Vdd and GND pads.

Temp. (°C)	ppm	±25	±50
-10 ~ +60	O	O	
-20 ~ +70	O	O	
-40 ~ +85	X	O	
-40 ~ +105	X	O	

o: Available Δ :Conditional X: Not available

Inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1 st year), shock, and vibration