

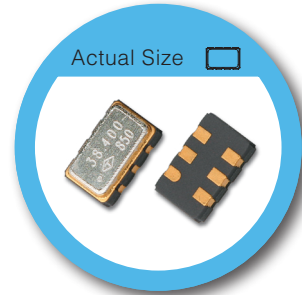
5.0 x 3.2mm SMD CMOS Voltage Controlled Crystal Oscillator – VW Type

FEATURE

- Typical 5.0 x 3.2 x 1.2 mm 6 pads ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Packing: Tape & Reel, 1000/2000/3000/5000pcs per Reel.

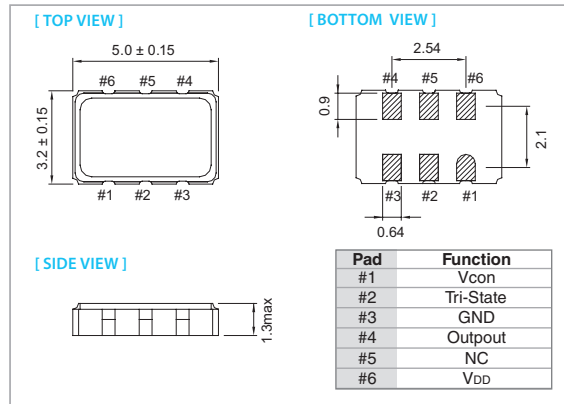
TYPICAL APPLICATION

- Set-top Box, HDTV
- Wimax/WLAN
- xDSL/ VoIP, Cable modem

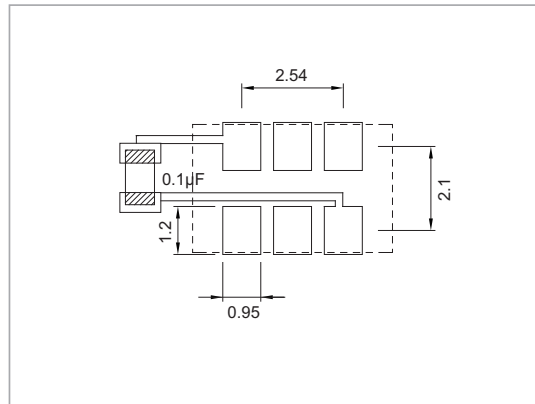


RoHS Compliant Standard

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	Min.		Max.		Unit
	5.0	3.3	5.0	3.3	
Supply Voltage Variation (V _{DD}) 10%	4.5	2.97	5.5	3.63	V
Frequency Range	1.5		80		MHz
Standard Frequency	19.44, 38.4				
Absolute Pulling Range (APR)	±50		-		ppm
Control Voltage Range	0.5	0.3	4.5	3.0	V
Supply Current	-		15	10	mA
1.5 MHz ≤ F _o < 20 MHz	-		30	20	
20 MHz ≤ F _o < 50 MHz	-		35	30	
Output Level	90%V _{DD}		-		V
Output High (Logic"1")	-		10%V _{DD}		
Output Low (Logic"0")	-		-		
Transition Time: Rise/Fall Time*	-		4	5	nSec
1.5 MHz ≤ F _o < 20 MHz	-		3	4	
20 MHz ≤ F _o < 50 MHz	-		2	3	
Start Time	-		5		
Tri-State (input to Pin 2)	-		-		V
Enable	0.7V _{DD}	0.7V _{DD}	-		
Disable	-		0.3V _{DD}	0.3V _{DD}	
Linearity	-		10		%
Modulation Bandwidth (BW)	-		-		KHz
1.5 MHz ≤ F _o < 80 MHz	20		-		
Input Impedance	2000		-		KΩ
Absolute Period Jitter	-		40		pSec
RMS Phase Jitter (Integrated 12KHz - 20MHz)	-		1		pSec
Aging	-		±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 10% and 90% of V_{DD}, with an output load of 15pF.

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	
	±25	±50
-10 ~ +60	○	○
-20 ~ +70	○	○
-40 ~ +85	△	○

* ○: Available △: Conditional X: Not available

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