

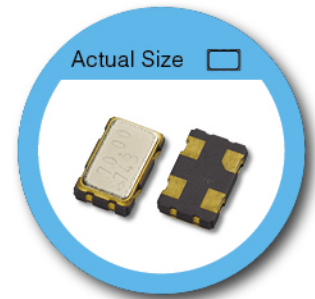
OV Type 5.0 x 3.2 mm SMD Crystal Oscillator

FEATURE

- Typical 5.0 x 3.2 x 1.2 mm ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Realize the standby function with Tri-State

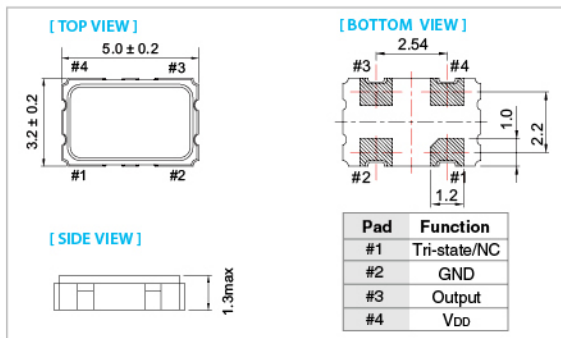
TYPICAL APPLICATION

- GPS, Mobile Phone,
- WLAN, Wireless, Fiber/10G-Bit Ethernet
- Notebook, PDA, DSC

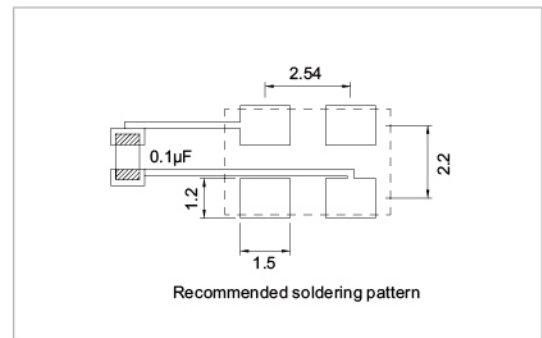


RoHS Compliant Standard

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	3.3V		2.5V		1.8V		unit
	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation(V _{DD}) 10%	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range	0.0216	166	0.0216	133	0.0216	125	MHz
Supply Current							mA
13.7KHz ≤ F ₀ ≤ 93KHz	—	1	—	0.5	—	0.1	
0.3125MHz ≤ F ₀ < 50MHz (A1)	—	10	—	8	—	7	
40MHz ≤ F ₀ < 75MHz	—	20	—	18	—	15	
75MHz ≤ F ₀ ≤ 133MHz	—	35	—	30	—	25	
133MHz ≤ F ₀	—	45	—	40	—	—	
Output Level (CMOS)							V
Output High (Logic "1")	90%V _{DD}	—	90%V _{DD}	—	90%V _{DD}	—	
Output Low (Logic "0")	—	10%V _{DD}	—	10%V _{DD}	—	10%V _{DD}	
Transition Time: Rise/Fall Time							nSec
13.7KHz ≤ F ₀ ≤ 93KHz	—	50	—	50	—	50	
0.3125MHz ≤ F ₀ < 100MHz	—	5	—	5	—	5	
100MHz ≤ F ₀	—	3	—	3	—	3	
Start Time	—	5	—	5	—	5	mSec
Output Drive Capability (CL)	—	15	—	15	—	15	pF
Tri-State (Input to Pin 1)							V
Enable (High voltage or floating)	0.7 V _{DD}	—	0.7 V _{DD}	—	0.7 V _{DD}	—	
Disable (Low voltage or GND)	—	0.3 V _{DD}	—	0.3 V _{DD}	—	0.3 V _{DD}	
Absolute Clock Period Jitter	—	40	—	40	—	40	pSec
RMS Phase Jitter (Integrated 12KHz~20MHz)	—	1	—	1	—	1	pSec
Standby Current	—	10	—	10	—	10	μA
Aging (@ 25°C 1st year)	—	±3	—	±3	—	±3	ppm
Storage Temp. Range	-55	125	-55	125	-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. Output waveform CMOS only.

Packing: Tape & Reel, 1000/2000/3000/5000pcs per Reel.

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	±20	±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