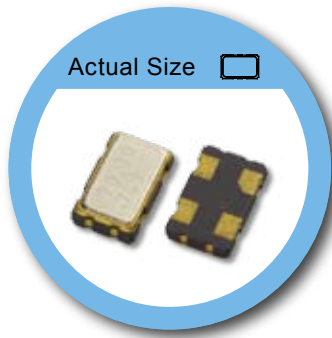


5.0 x 3.2 mm SMD Crystal Oscillator - 0V Type



FEATURE

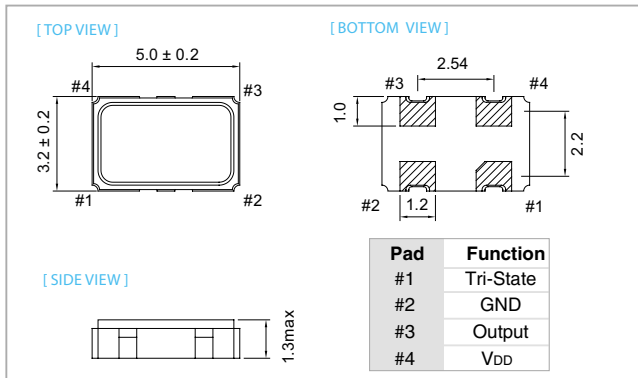
- Typical 5.0 x 3.2 x 1.2 mm ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Packing: Tape & Reel, 1000/2000/3000/5000pcs per Reel.

TYPICAL APPLICATION

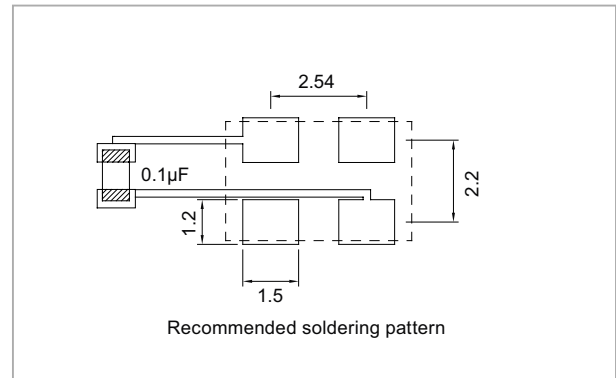
- GPS, Mobile Phone,
- WLAN, Wireless, Fiber/10G-Bit Ethernet
- Notebook, PDA, DSC

RoHS Compliant Standard

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	5.0V		3.3V		2.5V		1.8V		unit
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation(V _{DD}) 10%	4.5	5.5	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range	0.032768	75	0.032768	125	0.3456	125	0.6912	125	MHz
Supply Current									mA
0.032768 MHz ≤ F _o < 0.6912MHz	-	7	-	5	-	5	-	-	
0.6912 MHz ≤ F _o < 1.5MHz	-	7	-	5	-	5	-	5	
1.5 MHz ≤ F _o < 20 MHz	-	10	-	7	-	7	-	5	
20 MHz ≤ F _o < 50 MHz	-	30	-	20	-	15	-	15	
50 MHz ≤ F _o < 70 MHz	-	40	-	30	-	20	-	15	
70 MHz ≤ F _o < 75 MHz	-	40	-	30	-	20	-	20	
75 MHz ≤ F _o < 100 MHz	-	-	-	30	-	25	-	20	
100 MHz ≤ F _o	-	-	-	40	-	30	-	25	
Output Level (CMOS)									V
Output High (Logic "1")	90%V _{DD}	-	90%V _{DD}	-	90%V _{DD}	-	90%V _{DD}	-	
Output Low (Logic "0")	-	10%V _{DD}	-	10%V _{DD}	-	10%V _{DD}	-	10%V _{DD}	
Transition Time: Rise/Fall Time ⁺									nSec
0.032768 MHz ≤ F _o < 0.3456MHz	-	200	-	200	-	200	-	-	
0.3456MHz ≤ F _o < 0.6912 MHz	-	5	-	6	-	6	-	-	
0.6912 MHz ≤ F _o < 20 MHz	-	5	-	6	-	6	-	6	
20 MHz ≤ F _o < 50 MHz	-	4	-	4	-	5	-	5	
50 MHz ≤ F _o < 70 MHz	-	2	-	3	-	3	-	3	
70 MHz ≤ F _o ≤ 75 MHz	-	2	-	3	-	3	-	3	
75 MHz < F _o	-	-	-	2	-	2	-	3	
Start Time	-	5	-	5	-	5	-	5	mSec
Tri-State (Input to Pin 1)									V
Output Active	0.8 V _{DD}	-	0.6 V _{DD}	-	0.7 V _{DD}	-	0.7 V _{DD}	-	
Output in High Impedance State	-	0.16 V _{DD}	-	0.15 V _{DD}	-	0.2 V _{DD}	-	0.27 V _{DD}	
Absolute Clock Period Jitter	-	40	-	40	-	40	-	40	pSec
Standby Current	-	10	-	10	-	10	-	10	μA
Aging	-	±3	-	±3	-	±3	-	±3	ppm
Storage Temp. Range	-55	125	-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.

FREQ. STABILITY vs. TEMP. RANGE

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

○:Standard △:Available (case by case) ×:Not available

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