

7.0 x 5.0 mm SMD Crystal Oscillator – OC Type

FEATURE

- Typical 7.0 x 5.0 x 1.3 mm ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Packing: Tape & Reel, 1000/3000 pcs per Reel.
- Realize the Standby function with Tri-State

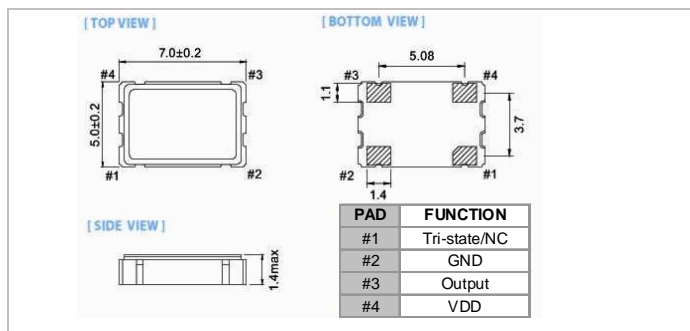
TYPICAL APPLICATION

- xDSL, WLAN, Fiber/10G-Bit Ethernet
- Notebook, PDA
- PC main board, VGA card

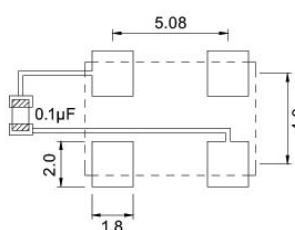


RoHS Compliant Standard

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 (VDD) 10%	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range	0.012	156.25	0.012	133	0.048	125	MHz
Supply Current							
F0 = 0.032768MHz	-	3	-	2	-	2	mA
0.3125MHz ≤ F0 < 20MHz	-	5	-	4	-	3	
20MHz ≤ F0 < 35.328MHz(A1)	-	7	-	6	-	5	
30MHz ≤ F0 < 50MHz(A3)	-	15	-	13	-	10	
50MHz ≤ F0 < 75MHz	-	20	-	18	-	15	
75MHz ≤ F0 < 100MHz	-	25	-	20	-	18	
100MHz ≤ F0 < 125MHz	-	35	-	30	-	20	
133MHz ≤ F0 < 156.25MHz	-	45	-	40	-	-	
Output Level (CMOS)							
Output High (Logic "1")	90%VDD	-	90%VDD	-	90%VDD	-	V
Output Low (Logic "0")	-	10%VDD	-	10%VDD	-	10%VDD	
Transition Time: Rise/Fall Time ⁺							
F0 = 0.032768MHz	-	200	-	200	-	200	nSec
0.3125MHz ≤ F0 < 50MHz	-	6	-	5	-	4	
50MHz ≤ F0 < 100MHz	-	5	-	4	-	3	
100MHz ≤ F0 < 125MHz	-	4	-	3	-	2	
125MHz ≤ F0 < 156.25MHz	-	3	-	2	-	-	
Start Time	-	5	-	5	-	5	mSec
Output Drive Capability (CL)	-	15	-	15	-	15	PF
Tri-State							
Output Active	0.7VDD	-	0.7VDD	-	0.7VDD	-	V
Output in High Impedance State	-	0.3VDD	-	0.3VDD	-	0.3VDD	
Absolute Clock Period Jitter	-	40	-	40	-	40	pSec
Standby Current	-	10	-	10	-	10	µA
Aging	-	±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 VDD, with an output load of 15pF only.

Output waveform CMOS only.

FREQ. STABILITY vs. TEMP. RANGE

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

* O: Standard △: Available (case by case) X: Not available

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