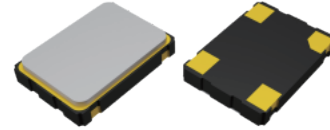


Crystal Oscillator, Series FCO-7C

SMD Crystal Oscillator 7.0×5.0 mm

FEATURE

- Typical 7.0×5.0×1.3 mm SMD package
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable / disable
- Output frequency up to 166MHz
- RoHS compliant / Pb-free



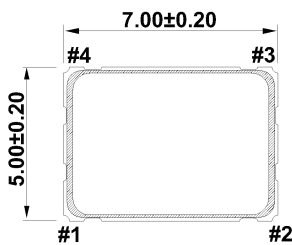
ELECTRICAL SPECIFICATIONS

Item	Specifications						Unit	
	3.3V		2.5V		1.8V			
Parameter	Min.	Max.	Min.	Max.	Min.	Max.		
Supply Voltage Variation	2.97	3.63	2.25	2.75	1.62	1.98	V	
Frequency Range	0.0137	166	0.0137	133	0.0137	125	MHz	
Standard Frequency	2,048, 25, 26, 27, 50, 66.667, 100, 125						MHz	
Supply Current	13.7kHz≤FO<70kHz	-	1	-	1	-	1	mA
	0.312MHz≤FO<35.328MHz	-	10	-	8	-	7	
	40 MHz≤FO<75MHz	-	20	-	18	-	15	
	75 MHz≤FO<135MHz	-	35	-	30	-	25	
	135 MHz≤FO	-	45	-	40	-	-	
Transition Time : Rise/Fall Time	13.7kHz≤FO<93kHz	-	50	-	50	-	50	nSec
	0.312MHz≤FO<100MHz	-	5	-	5	-	5	
	100MHz≤FO	-	3	-	3	-	3	
Output Level (CMOS)	Out High(Logic"1")	2.97	-	2.25	-	1.62	-	V
	Out Low(Logic"0")	-	0.33	-	0.25	-	0.18	
Start Time	-	5	-	5	-	5	mSec	
Tri-State (Input to Pin 1)	Enable(High Voltage or floating)	2.31	-	1.75	-	1.26	-	V
	Disable(Low Voltage or GND)	-	0.99	-	0.75	-	0.54	
Period Jitter (Pk-Pk)	-	40	-	40	-	40	pSec	
RMS Phase Jitter (integrated 12KHz to 20MHz)	-	1	-	1	-	1	pSec	
Standby Current	-	10	-	10	-	10	µA	
Aging(@25 1st year)	-	±3	-	±3	-	±3	ppm	
Storage Temp. Range	-55	125	-55	125	-55	125	°C	

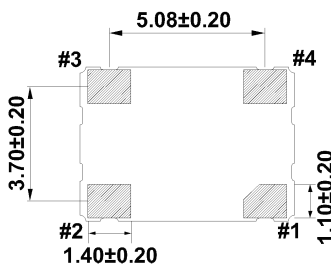
Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.
+ Transition times are measured between 10% and 90% of VDD, with an output load of 15pF.

DIMENSION (mm)

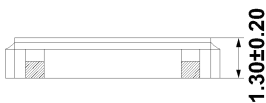
TOP VIEW



BOTTOM VIEW

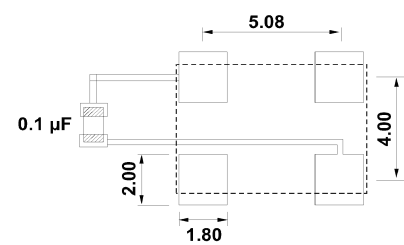


SIDE VIEW



PIN#	Function
1	Tri-State
2	GND
3	Output
4	VDD

SOLDER PAD LAYOUT(mm)



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

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm		
	±20	±25	±50
-10 ~ +60	○	○	○
-20 ~ +70	△	○	○
-40 ~ +85	△	○	○
-40 ~ +125	x	x	○

○: Available △: Conditional x: Not available

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