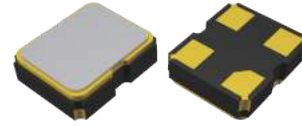


Crystal Oscillator, Series FCO-6C

SMD Crystal Oscillator 2.0×1.6 mm

FEATURE

- Typical 2.05×0.65×0.75mm SMD package
- Tight symmetry (45 to 55%) available
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable / disable
- RoHS compliant / Pb-free

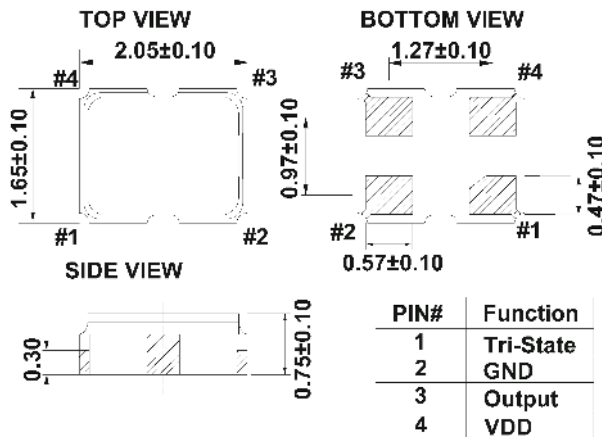


ELECTRICAL SPECIFICATIONS

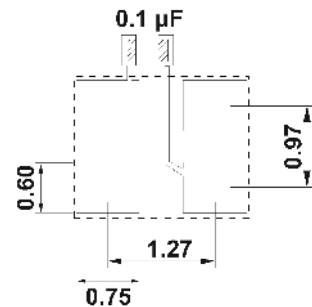
Item	Specifications						Unit
	3.3V		2.5V		1.8V		
Parameter	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range	1.5	50	1.5	50	1.5	50	MHz
Standard Frequency	24, 26, 32, 40						MHz
Supply Current	-	15	-	10	-	7	mA
Duty Cycle	45	55	45	55	45	55	%
Transition Time :Rise/Fall Time	1.5 MHz≤FO<20MHz		-	4	-	5	nSec
	20 MHz≤FO<50MHz		-	3	-	4	
Output Level (CMOS)	Output High(Logic"1")		2.25		1.62		V
	Output Low(Logic"0")		0.33		0.18		
Start Time	-	2	-	2	-	2	mSec
Tri-State (Input to Pin 1)	Enable(High Voltage or floating)		2.31		1.26		V
	Disable(Low Voltage or GND)		-		0.54		
Period Jitter (Pk-Pk)	-	40	-	40	-	40	pSec
RMS Phase Jitter (integrated12kHz 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)



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	x	○	○
-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