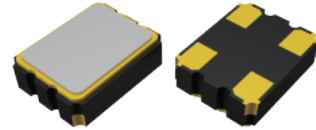


## Crystal Oscillator, Series FCO-3C

### SMD Crystal Oscillator 3.2×2.5 mm

#### FEATURE

- Typical 3.2×2.5×0.95mm SMD package
- Tight symmetry (45 to 55%) available
- Operation voltage: 1.8V, 2.5V, 3.3V
- Tri-state enable / disable
- RoHS compliant / Pb-free

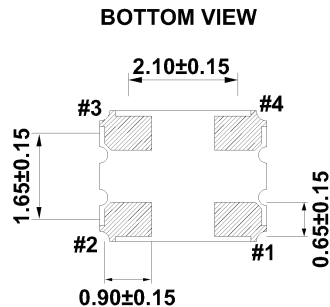
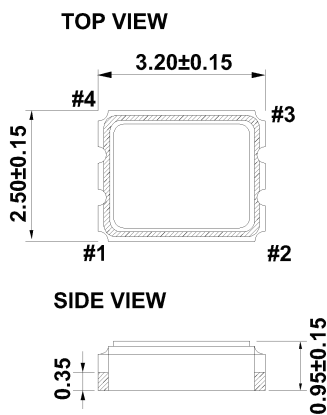


#### ELECTRICAL SPECIFICATIONS

Item	Specifications						Unit
	3.3V		2.5V		1.8V		
Parameter	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation	3.135	3.465	2.375	2.625	1.71	1.89	V
Frequency Range	1.25	125	1.25	125	1.25	125	MHz
Standard Frequency	4,24,26,32,38,40						MHz
Supply Current( At 15pF Load)	-	15	-	10	-	7	mA
Duty Cycle	45	55	45	55	45	55	%
Transition Time :Rise/Fall Time	1.25 MHz≤FO<10MHz		-	3	-	5	nSec
	10 MHz≤FO<125MHz		-	3	-	4	
Output Level	Out High(Logic"1")		2.97	2.25	1.62		V
	Out Low(Logic"0")			0.33	0.25	0.18	
Start Time	-	2	-	2	-	2	mSec
Tri-State (Input to Pin 1)	Enable(High Voltage or		2.31	-	1.75	-	V
	Disable(Low Voltage or GND)		-	0.99	-	0.75	
Period Jitter (Pk-Pk)	-	40	-	40	-	40	pSec
RMS Phase Jitter (integrated12kHz to 20MHz)	-	1	-	1	-	1	pSec
Standby Current(@-40 to 85°C)	-	10	-	10	-	10	μA
Standby Current(@-40 to 125°C)	-	20	-	20	-	20	μA
Aging(@25 1st year)	-	±3	-	±3	-	±3	ppm
Storage Temp. Range	-55	125	-55	125	-55	125	°C

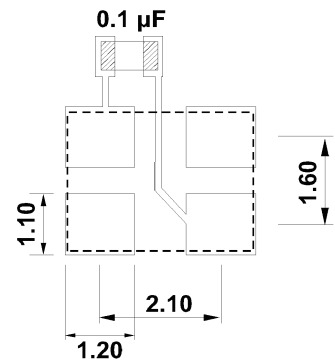
Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.  
+ Transition times are measured between 10% and 90% of VDD, with an output load of 15pF.

#### DIMENSION (mm)



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	×	×	○

○: Available △: Conditional ×: Not available

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