



# TUNING FORK UNIT

## SFO-3225

### Applications

- Clock and Data Recovery

### Features

- Small ceramic package / Dimensions (3.2x 2.5x 0.9)
- Low power consumption (CMOS/IC 1.5  $\mu$  A) with Tri-state function and wide range operating temperature (-40°C ~ +85°C)
- Start-up time below 1 sec. Supply Voltage 1.5 ~ 5.5V

### Specifications

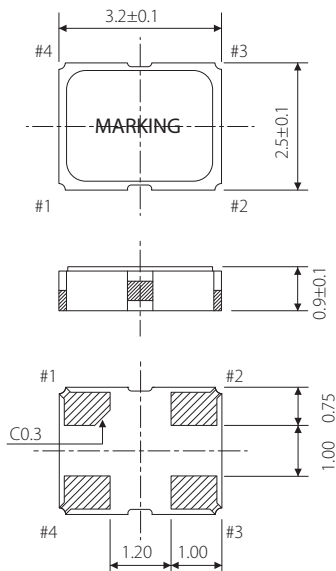


Model	SFO-3225	Condition
Output frequency	32.768 kHz	-
Storage temperature range	-55 ~ +125°C	-
Operating temperature range	-40 ~ +85°C	-
Frequency stability	(+5 $\pm$ 20) $\times 10^{-6}$	Vdd=+3.3V, +25°C
Frequency Temp. characteristics	(-120~+10) $\times 10^{-6}$	at -20~+70°C, +25°C as the reference
Power supply voltage	+1.5 ~ +5.5V	STD: +3.3V $\pm$ 10%
Current consumption	1.5 $\mu$ A max.	Vdd=+3.3V, No Load
	2.5 $\mu$ A max.	Vdd=+5.0V, No Load
Load	15pF max.	-
Output voltage level	V <sub>OL</sub> : 0.4V max. / V <sub>OH</sub> : (Vdd-0.4V) min.	CL=15pF, +25°C
Rise & Fall time	200ns max.	at 10%~90%Vdd CL=15pF
Duty cycle	40%~60%	at 1/2Vdd, CL=15pF, -40~+85°C
Oscillation start up time	1sec max.	Vdd=1.5~5.5V, -40~+85°C
Standby current consumption	1uA max.	25°C
Tri-state Function	-	#1: "H" → Output enable
		#1: "L" → Output disable (Hi-Z)

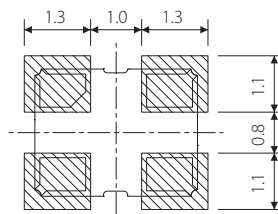
Package quantity: 3,000pcs max./Reel.

### Outline and Dimensions [unit:mm]

Please connect the terminal CE at the High level when you do not use the oscillation stop function.



Example of a Terminal Land Pattern



Terminal	Connection
#1	OE
#2	GND
#3	OUTPUT
#4	Vdd

Tri-state Pin	Output
High	Active
Low	Hi-impedance