

SXO-3225 (+1.8V to +3.3V FIXED MODELS) 3.2x2.5 mm

STANDARD SMD TCXO

XTAL

CLK OSC

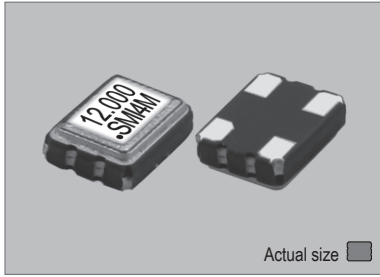
VCXO

TCXO

OCXO

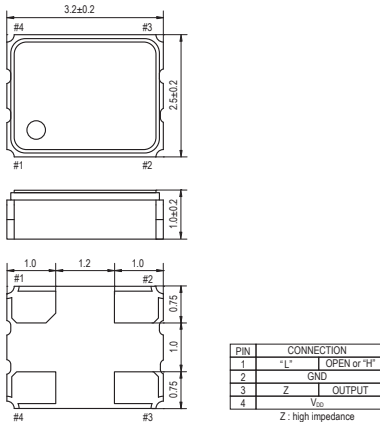
MCF

SXO-3225

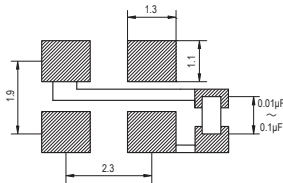


Actual size 0.025 gm (wt.)

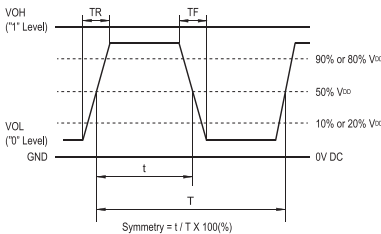
SXO-3225



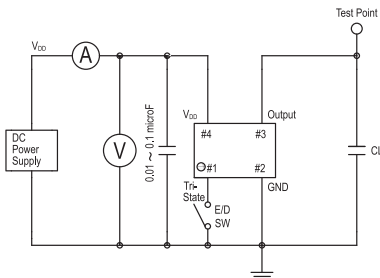
SOLDERING PATTERN



OUTPUT WAVEFORM



TEST CIRCUIT



CL: including fixture and probe capacitance.

STANDARD SPECIFICATIONS

- ENABLE / DISABLE OUTPUT CONTROL
- CMOS OUTPUT
- PACKAGE SIZE 3.2x2.5 mm

Item	Specifications					
General part number	SXO-3225*1					
Frequency range	4.000 MHz to 54.000 MHz					
Initial frequency tolerance at +25°C ±2°C	±1.0 ppm max.					
Frequency Stability	Temperature range	±2.5 ppm max. over -30°C to +75°C (referred to +25°C)*2				
	Input voltage change	±0.2 ppm max. at V _{DD} ±5% DC				
	Output load change	±0.2 ppm max. at 15 pF ±10%				
	Aging	±1 ppm max. per year at +25°C ±3°C				
Operating Conditions	Operating temperature	-30°C to +75°C (Standard) -40°C to +85°C (W = Option, frequency dependent)				
	Supply voltage (V _{DD})	D = +1.8V*2, F = +2.5V, H = +2.8V, J = +3.0V, K = +3.3V DC ±5%				
	Stand-by control voltage(Pin#1)	V _{IH} : 80% V _{DD} min. V _{IL} : 20% V _{DD} max.*2				
Absolute Max. Ratings	Supply voltage	-0.5V to +4V DC				
	Storage temperature	-55°C to +100°C				
Input current (max. mA)		4 to 10 MHz	10 to 20 MHz	20 to 30 MHz	30 to 40 MHz	40 to 54 MHz
	+1.8V*2	3.1	3.7	4.2	4.6	5.5
	+2.5V	3.1	3.7	4.2	4.6	5.5
	+2.8V	3.4	4.1	4.7	5.2	6.0
	+3.3V	4.0	4.8	5.5	6.0	7.0
	Stand-by current*3	10 µA max. (Pin#1 = V _{IL})... -40°C to +85°C				
Output (-40 C to +85°C)	Symmetry	45% to 55% at 1/2 V _{DD} level				
	Rise and fall times	5 ns max. (10% V _{DD} to 90% V _{DD} level)				
	"0" level	V _{OL} : 10% V _{DD} max.				
	"1" level	V _{OH} : 90% V _{DD} min.				
Load	15 pF max. (CMOS)					
Disable delay time	200 ns max.					
Enable delay time	10 ms max.					
Start-up time	10 ms max.					
SSB phase noise (26.000MHz)	-145 dBc / Hz, Typical at 10 kHz offset					
Reflow condition	+250°C ±10°C for 10 seconds +170°C ±10°C for 1 to 2 minutes (preheating)					
Standard frequencies (MHz)	10.000, 12.000, 16.000, 20.000, 20.480, 24.000, 32.000, 40.000, 44.000					

(*1) Final part number to be assigned with package type, input voltage, operating temperature and frequency.

e.g. SXO-3225-K-W-40MHz

(*2) V_{DD} = +1.8V available for only allover ±5 ppm max. of frequency stability.

(*3) Internal crystal oscillation to be halted (Pin#1 = V_{IL})

PACKAGE DATA

Item	Package	SXO-3225
Lid		Metal
Base		Ceramic
Sealing		Seam
Terminal		Tungsten (metalized)
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant (Pb-free)

TAPE SPECIFICATIONS

