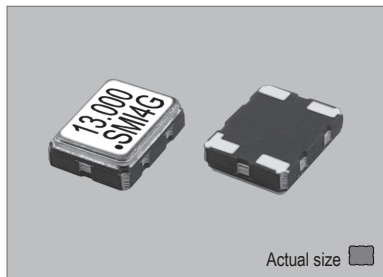
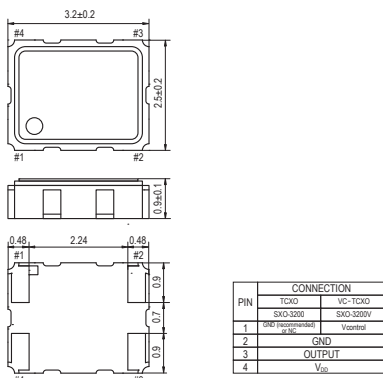


SXO-3200

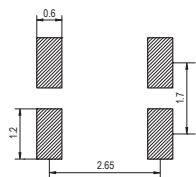


Actual size 0.024 gm (wt.)

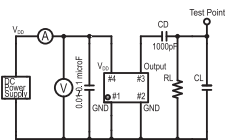
SXO-3200



SOLDERING PATTERN

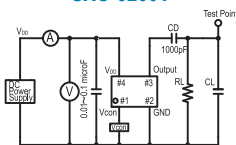


TEST CIRCUIT
SXO-3200



CD: DC-Cut capacitance
RL: 10kΩm ± 10%
CL: 10pF ± 10% including fixture and probe capacitance

SXO-3200V



CD: DC-Cut capacitance
RL: 10kΩm ± 10%
CL: 10pF ± 10% including fixture and probe capacitance

STANDARD SPECIFICATIONS

● CLIPPED SINE WAVEFORM
● PACKAGE SIZE 3.2x2.5 mm

Item	Specifications							
General part number	SXO-3200*1	SXO-3200V*1						
Frequency range	10.000 MHz to 40.000 MHz							
Initial frequency tolerance at +25°C ±2°C	± 1.5 ppm max.*2	± 1.5 ppm max. (Vcon = 1/2 VDD) ²						
TCXO or VC-TCXO	TCXO	VC-TCXO						
Frequency Stability	Temperature range	±2.5 ppm max. over -30°C to +75°C (referred to +25°C) ³						
	Input voltage change	±0.3 ppm max. at VDD ±5% DC						
	Output load change	±0.2 ppm max. at 10 kΩ ±10% with 10 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 (VDD)	D = +1.8V, F = +2.5V, H = +2.8V, J = +3.0V, K = +3.3V DC ±5%						
Absolute Max. Ratings	Control voltage (Vcon)	n.a. / 1/2 VDD ±0.8V (VDD = +1.8V) 1/2 VDD ±1V (VDD = +2.5V to +3.3V)						
	Supply voltage	-0.6V to +4.6V DC						
Input current	Vcontrol voltage (Vcon)	n.a. / -0.6V to VDD +0.6V DC						
	Storage temperature	-40°C to +85°C						
Output (-40°C to +85°C)	Supply voltage	-0.6V to +4.6V DC						
	Vcontrol voltage (Vcon)	n.a. / -0.6V to VDD +0.6V DC						
	Storage temperature	-40°C to +85°C						
Frequency Adjustment	Supply voltage	-0.6V to +4.6V DC						
	Vcontrol voltage (Vcon)	n.a. / -0.6V to VDD +0.6V DC						
	Storage temperature	-40°C to +85°C						
Input current	Level	1.5 mA max. (10.000 MHz to 30.000 MHz) 1.7 mA max. (30.000 MHz to 40.000 MHz)						
	Load	0.8 Vp-p min. 10 kΩ. // 10 pF						
	Waveform	Clipped sine wave (DC-coupling)						
Output (-40°C to +85°C)	Level	0.8 Vp-p min.						
	Load	10 kΩ. // 10 pF						
Frequency Adjustment	Waveform	Clipped sine wave (DC-coupling)						
	Voltage control	n.a.	±8 ppm to ±13 ppm (VDD = +1.8V) ±9 ppm to ±15 ppm (VDD = +2.5V to +3.3V)					
Frequency slope	n.a.	positive						
Harmonic distortion	-5 dBc max.							
Start-up time	2 ms max.							
SSB phase noise (26.000 MHz)	-135 dBc / Hz, Typical at 1 kHz offset							
Short-term frequency stability	±1 ppb max. (Allan variance Tau = 0.1 sec.)							
IR reflow resistance	±1 ppm max. (referred to frequency before reflow)							
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, 12.288, 12.800, 13.000, 14.000, 14.7456, 15.000, 15.360, 16.000, 16.384, 16.639, 16.800, 18.000, 19.000, 19.440, 19.680, 20.000, 21.250, 22.400, 24.000, 24.576, 25.000, 26.000, 38.400, 40.000							
Optional Operating Temperature*4	Low limit / Symbol	-10°C / g	-15°C / h	-20°C / i	-25°C / j	-30°C / k	-35°C / l	-40°C / m
	High limit / Symbol	+55°C / ff	+60°C / gg	+65°C / hh	+70°C / ii	+75°C / jj	+80°C / kk	+85°C / ll

(*) Final part number to be assigned with package type, TCXO or VC-TCXO, input voltage, operating temperature and frequency. e.g. SXO-3200V-K-40MHz
 (*2) Referred to nominal frequency before reflow soldering.
 (*3) At Vcon = 1/2 VDD DC for SXO-3200V.
 (*4) Select "low limit" and "high limit" for new operating temperature combination from the lists.

PACKAGE DATA

Item	Package	SXO-3200
Lid		Metal
Base		Ceramic
Sealing		Seam
Terminal		Tungsten (metallized)
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant (Pb-free)

TAPE SPECIFICATIONS

