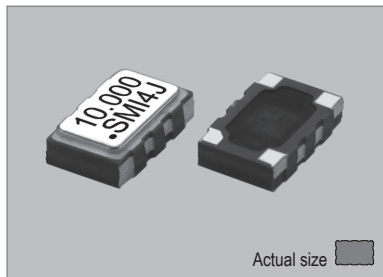
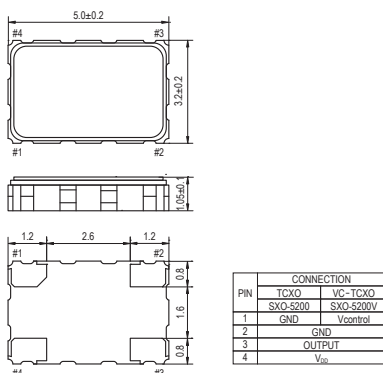


SXO-5200

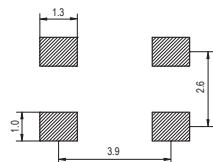


Actual size
0.06 gm (wt.)

SXO-5200



SOLDERING PATTERN

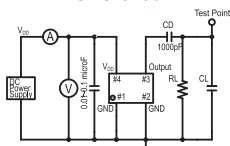


OUTPUT WAVEFORM



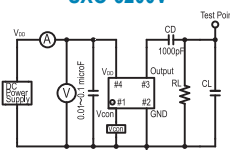
TEST CIRCUIT

SXO-5200



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

SXO-5200V



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

STANDARD SPECIFICATIONS

● CLIPPED SINE WAVEFORM
● PACKAGE SIZE 5.0x3.2 mm

Item	Specifications	
General part number	SXO-5200*1	SXO-5200V*1
Frequency range	6.000 MHz to 45.000 MHz	
Initial frequency tolerance at +25°C ±2°C	±0.5 ppm max.*2	± 0.5 ppm max.(V _{CON} = ±1.5V)*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	±0.2 ppm max. at V _{DD} ±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 (V _{DD})	H = +2.8V, J = +3.0V, K = +3.3V, N = +5.0V DC ±5%
	Control voltage (V _{CON})	n.a. +1.5V ±1V
Absolute Max. Ratings	Supply voltage	-0.6V to +6.0V DC
	V _{control} voltage (V _{CON})	n.a. -0.6V to V _{DD} +0.6V DC
	Storage temperature	-40°C to +85°C
Input current	1.5 mA max. (6.000 MHz to 20.000 MHz) 2 mA max. (20.000 MHz to 32.000 MHz) 2.5 mA max. (32.000 MHz to 45.000 MHz)	
Output (-40°C to +85°C)	Level	0.8 Vp-p min.
	Load	10 kΩ // 10 pF
	Waveform	Clipped sine wave (DC-coupling)
Frequency Adjustment	Voltage control (+1.5V ±1V)	n.a. ±8 ppm min.
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)	8.000, 10.000, 12.000, 12.800, 13.000, 14.400, 16.368, 19.200, 19.800, 20.000, 25.5535, 26.000, 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

(*1) Final part number to be assigned with package type, TCXO or VC-TCXO, input voltage, operating temperature and frequency. e.g. SXO-5200V-N-W-26MHz

(*2) Referred to nominal frequency before reflow soldering.

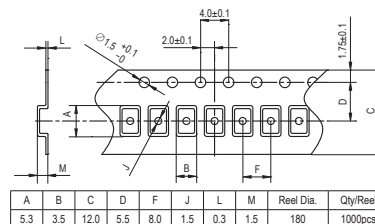
(*3) At V_{CON} = +1.5V DC for SXO-5200V

(*4) Select "low limit" and "high limit" for new operating temperature combination from the lists.

PACKAGE DATA

Item	Package	SXO-5200
Lid		Metal
Base		Ceramic
Sealing		Seam
Terminal		Tungsten (metalized)
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant (Pb-free)

TAPE SPECIFICATIONS



XTAL

CLK OSC

VCXO

TCXO

OCXO

MCF