

SXO-7100*1 SERIES (+2.8V to +5.0V FIXED MODELS) 7.0x5.0 mm

STANDARD SMD TCXO

XTAL

CLK OSC

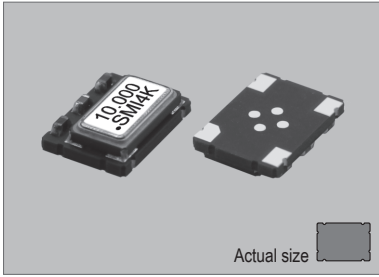
VCXO

TCXO

OCXO

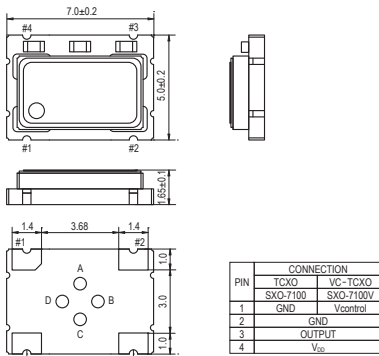
MCF

SXO-7100



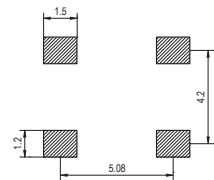
0.165 gm (wt.)

SXO-7100



* The terminals (A,B,C & D) Not to be connected.
* No pattern path underneath the package.

SOLDERING PATTERN

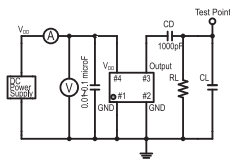


OUTPUT WAVEFORM



TEST CIRCUIT

SXO-7100

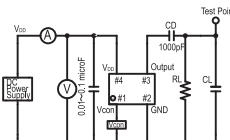


CD : DC-Cut capacitance

RL : 10kΩ±10%

CL : 10pF ± 10% including fixture and probe capacitance

SXO-7100V



CD : DC-Cut capacitance

RL : 10kΩ±10%

CL : 10pF ± 10% including fixture and probe capacitance

STANDARD SPECIFICATIONS

● CLIPPED SINE WAVEFORM
● PACKAGE SIZE 7.0x5.0 mm

Item		Specifications						
General part number		SXO-7100*2	SXO-7100V*2					
Frequency range		10.000 MHz to 26.000 MHz						
Initial frequency tolerance at +25°C ±2°C		±0.5 ppm max.*3	±0.5 ppm max. (V _{CON} = +1.5V) ³					
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) ⁴						
	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 DC					
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		2 mA max.						
Output (-40°C to +85°C)	Level	0.8 V _{p-p} min.						
	Load	10 kΩ // 10 pF						
	Waveform	Clipped sine wave (DC-cut)						
Frequency adjustment	n.a.		±8 ppm min.					
Voltage control (+1.5V ±1V)	n.a.							
Frequency slope	n.a.		Positive					
Harmonic distortion		-5 dBc max.						
Start-up time		2 ms max.						
SSB phase noise (26.000 MHz)		-130 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, 12.800, 13.000, 14.400, 15.360, 19.200, 19.680, 26.000						
Optional Operating Temperature*5	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) Formerly SXO-7100AV(B)

(*2) Final part number to be assigned with package type, TCXO or VC-TCXO, input voltage, operating temperature and frequency. e.g. SXO-7100-K-15.36MHz

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

(*4) At V_{CON} = +1.5 V DC for SXO-7100V.

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

PACKAGE DATA

Item	Package	SXO-7100
Lid		Metal
Base		Ceramic
Sealing		Seam
Terminal		Tungsten (metalized)
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant (Pb-free)

TAPE SPECIFICATIONS

