

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

STANDARD SMD TCXO

XTAL

CLK OSC

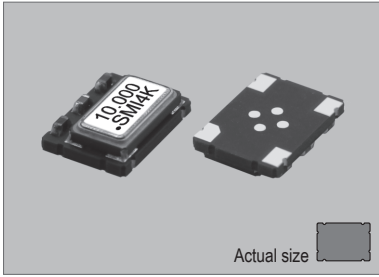
VCXO

TCXO

OCXO

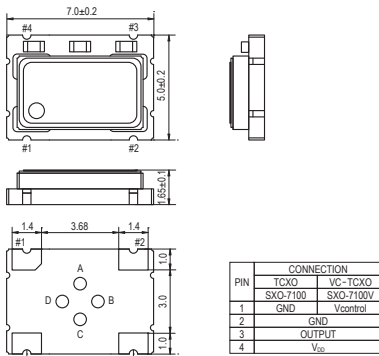
MCF

**SXO-7100**



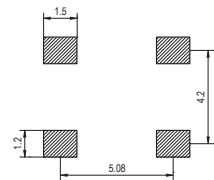
Actual size 0.165 gm (wt.)

**SXO-7100**



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

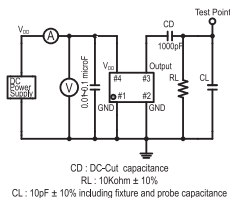
**SOLDERING PATTERN**



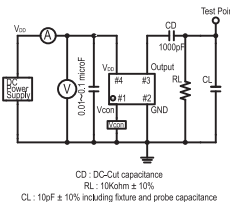
**OUTPUT WAVEFORM**



**TEST CIRCUIT SXO-7100**



**SXO-7100V**



**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. (Vcon = +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 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)	H = +2.8V, J = +3.0V, K = +3.3V, N = +5.0V DC ±5%						
	Control voltage (Vcon)	n.a.	+1.5V ±1V DC					
Absolute Max. Ratings	Supply voltage	-0.6V to +6.0V DC						
	Vcontrol voltage (Vcon)	n.a.	-0.6V to VDD +0.6V DC					
	Storage temperature	-40°C to +85°C						
Input current		2 mA max.						
Output (-40°C to +85°C)	Level	0.8 Vp-p min.						
	Load	10 kΩ // 10 pF						
	Waveform	Clipped sine wave (DC-cut)						
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)		-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 Vcon = +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**

