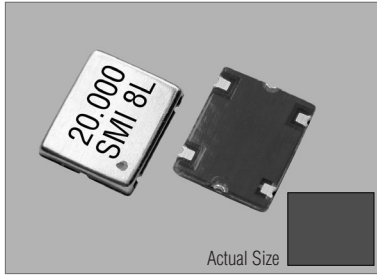


# Voltage Controlled Temperature Compensated Crystal Oscillators

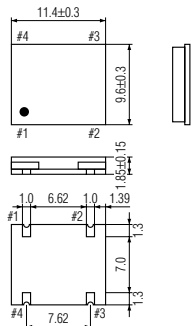
SXO-6000E SERIES (SINE WAVE VCTCXO)

STANDARD SMD VCTCXO

SXO-6000E

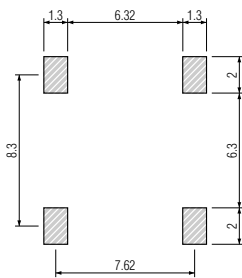


SXO-6000E

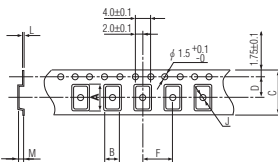


PIN	CONNECTION
1	V <sub>control</sub>
2	GND
3	OUTPUT
4	V <sub>cc</sub>

## SOLDERING PATTERN



## TAPE SPECIFICATIONS



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
12.0	10.2	24.0	11.5	12.0	2.0	0.3	2.3	330 (300)	2000pcs

## STANDARD SPECIFICATIONS

VCTCXO

Item	Specifications				
Generic part number	SXO-6000E(A)	SXO-6000E(B)	SXO-6000E(C)	SXO-6000E(D)	SXO-6000E(E)
Frequency range	9.600000 MHz to 40.000000 MHz				
Initial frequency tolerance	±3 ppm (+25°C ±2°C)	±5 ppm (+25°C ±2°C)	±3 ppm (+25°C ±2°C)	±5 ppm (+25°C ±2°C)	±10 ppm (+25°C ±2°C)
Frequency stability					
Temperature range	±2.5 ppm (-30°C to +75°C)	±10 ppm (-30°C to +75°C)	±2.5 ppm (-30°C to +75°C)	±5.0 ppm (-30°C to +75°C)	±10 ppm (-20°C to +75°C)
Input voltage change*	±0.3 ppm (+3V ±0.15V)	±0.5 ppm (+3V ±0.15V)	±0.3 ppm (+5V ±0.25V)	±0.5 ppm (+5V ±0.25V)	±1.0 ppm (+5V ±0.26V)
Output load change	±0.3 ppm max. at 10K Ω ±10% with 10 pF ±10%				
Aging* (max. at +25°C ±2°C)	±1.5 ppm / year	±2.0 ppm / year	±1.0 ppm / year	±2.0 ppm / year	±3.0 ppm / year
Frequency pulling range (min.)**	±20 ppm (+1.5V ±1V)	±30 ppm (+1.5V ±1V)	±20 ppm (+2.5V ±2V)	±40 ppm (+2.5V ±2V)	±60 ppm (+2.5V ±2V)
Operating Conditions					
Operating temperature	-30°C to +75°C				-20°C to +75°C
Input voltage (VDD)	+3V ±0.15V		+5V ±0.25V		
Control voltage (Vcon)	+1.5V DC ±1V		+2.5V DC ±2V		
Absolute Max. Ratings					
Supply voltage	0V to +7.0V				
Storage temperature	-40°C to +85°C				
Input current	2.0* mA max.				
Output					
Level	0.8Vp-p min. (9.6 MHz to 16 MHz)		1.0Vp-p min. (9.6 MHz to 16 MHz)		
	0.7Vp-p min. (16 MHz to 40 MHz)		0.8Vp-p min. (16 MHz to 40 MHz)		
Load	10k Ω // 10 pF				
Waveform	Clipped sine wave (DC-cut)				
Startup time	3 ms max.				
Frequency linearity	10% max.				
Frequency slope	Positive				
SSB phase noise	-140 dBc/Hz at 1 kHz offset				
IR reflow resistance	±1.0 ppm max.				
Reflow condition	+250°C ±10°C for 10 seconds				

(※) Please contact about specifications for higher frequencies than 22MHz.

## PACKAGE DATA

Item	Package	SXO-6000E
Cover		Metal
Base		PCB
Terminal		NiAu
Terminal plating		Gold
RoHS		Compliant (Pb-free)

VCTCXO