

The miniature VC-TXO-23SM is a compact SMD VC-TCXO. The 3.2 x 2.5 x 0.9 mm ceramic package is ideal for today's SMD manufacturing environment.

Request a Sample

### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Low profile
- 3.2 x 2.5 mm Footprint
- Highly stable output
- PbFree/RoHS Compliant

Parameters	Conditions	VC-TXO-23SM			Units
		MIN	TYP	MAX	
Frequency Range		10.000		40.000	MHz
Initial Frequency Tolerance	+25°C ±2°C			±1.5	PPM
Frequency Stability	Option A -10 ~ +70°C			±2.5	PPM
	Option B -30 ~ +75°C			±2.5	PPM
	Option C -30 ~ +85°C			±5.0	PPM
Input Voltage Change	±3.0 VDC ±5%			±0.3	PPM
Load Change	10k Ω ±10%/10pF ±10%			±0.2	PPM
Aging	Per Year @ +25°C ±3°C			±1.0	PPM
Storage Temperature		-40		+85	°C
Supply Voltage		+2.85	+3.0	+3.15	V DC
Input Current	Without Load			1.5	mA
Output Level		0.8			Vp-p
Output Load	10k Ω // 10pF				
Output Waveform	Clipped sine wave (DC-Coupling)				
Frequency Control Range	+1.5 VDC ±1V Positive Slope	±9		±15	PPM
Control Voltage		+0.5	+1.5	+2.5	VDC
SSB Phase Noise	-130 dBc/Hz at 1 KHz offset				
Startup Time				3.5	ms
IR Reflow Resistance				±1.0	PPM
Reflow Condition	+250°C ±10°C for 10 seconds				

### Part Numbering Guide: VC-TXO-23SM-192-B

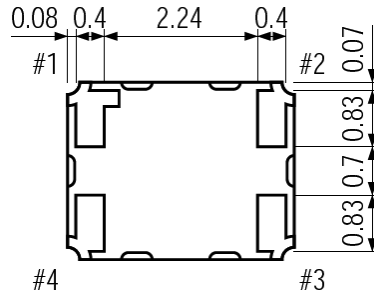
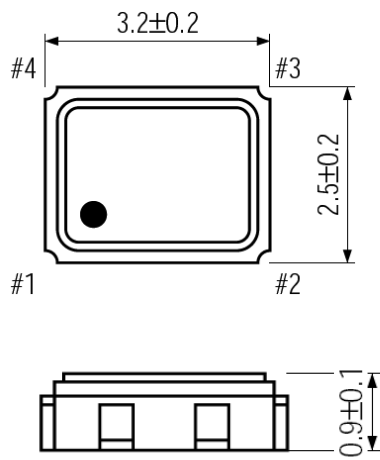
Series	-	Frequency Abbreviations	-	Frequency Stability
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VC-TXO-23SM

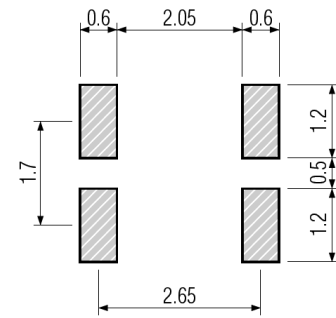
100 = 10.000 MHz  
 192 = 19.200 MHz  
 196.8 = 19.680 MHz  
 198 = 19.800 MHz  
 200 = 20.000 MHz  
 260 = 26.000 MHz

A = ±2.5 ppm -10 ~ +75°C  
 B = ±2.5 ppm -30 ~ +75°C  
 C = ±5.0 ppm -30 ~ +85°C

**Package Dimensions (mm)**

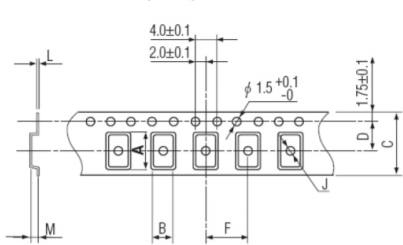


Pin Connections	
#1	V Control
#2	Ground
#3	Output
#4	+VDC



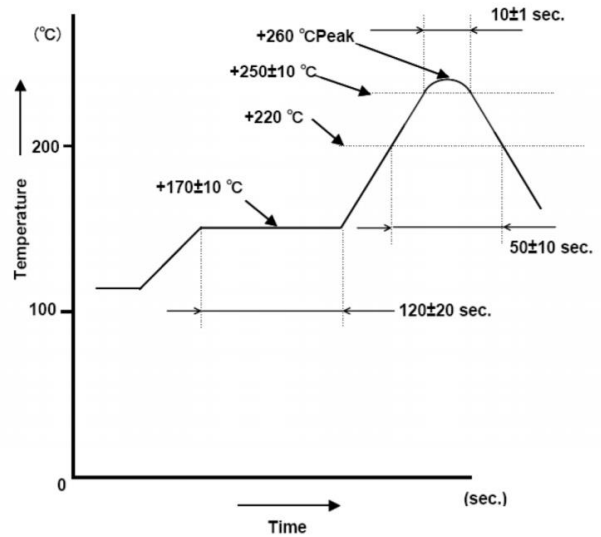
**Figure 2) Land Pattern**

**Figure 1) Top, Side, and Bottom views**



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
3.5	2.8	8.0	3.5	4.0	1.1	0.25	1.0	180	1000

**Figure 3) Pocket Tape Dimensions**



**Figure 4) Suggested Reflow Profile**

Package Data	
Item	Description
Lid	Metal
Base	Ceramic
Sealing	Seam
Terminal	Tungsten (metalized)
Plating	Gold/Nickel (Surface)/(Under)
RoHS	Compliant (Pb Free)