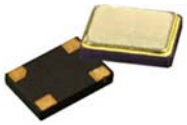
TX20SA Series

TCXO, 2.0 x 1.6mm, Clipped sine wave

From ±0.5ppm stability over -30°C to 85°C

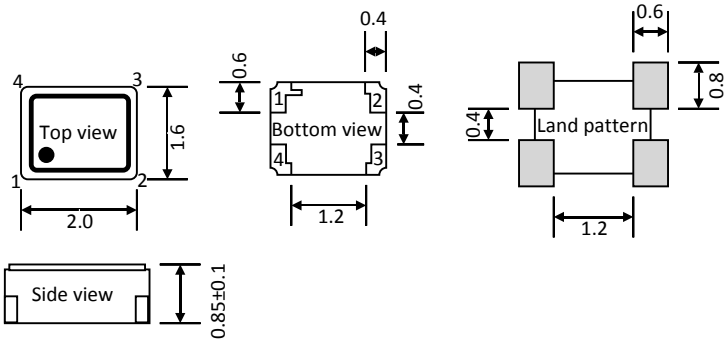


Parameters			Specification	Remarks
Frequency range		F_nom	8.0MHz ~ 50.0MHz	Limited frequencies available
Supply voltage		Vcc	1.8V, 2.4V,2.8V, 3.0V	±5% tolerance
Initial frequency tolerance		F_tol	±1.0ppm max	at +25°C
Frequency stability	vs Temperature	F_stb	±0.5ppm max	Table 1
	vs Load	F_load	±0.2ppm max.	±10% load condition change
	vs Voltage	F_Vcc	±0.2ppm max.	±5% input voltage change
	vs Aging	F_age	±1.0ppm max	1 year
	vs Reflow		±1.0ppm max.	2 times
Frequency stability slope (-20°C ~ +70°C)			±0.1ppm/°C max	Every +2°C
Frequency stability slope (-30°C ~ -20°C)			±0.2ppm/°C max	Every +2°C
Frequency stability slope (+70°C ~ +85°C)			±0.2ppm/°C max	Every +2°C
Operating temperature range (°C)		Topr	-30°C ~ +85°C	Table 1
Storage temperature (°C)		Tstg	-40°C ~ +85°C	
Output wave form			Clipped sine wave	DC coupled
Output voltage level			0.8V p-p (min.)	
Output Load			10KΩ//10pF	±10% tolerance
Current consumption		Icc	1.5mA max.	10KΩ//10pF±10%
Start-up time		T_str	2.0ms max.	Reach 90% amplitude at +25°C
Moisture sensitive level		MSL	1	
ESD sensitive device			Yes	
Please leave product at room temperature for 2 hrs or more after reflow.				

Table 1 Frequency stability vs Temperature

Temp. (°C)	Stability in ppm					
	±0.5	±1.0	±1.5	±2.0	±2.5	±3.0
0°C to 50°C	√	√	√	√	√	√
-10°C to 60°C	√	√	√	√	√	√
-20°C to 70°C	√	√	√	√	√	√
-30°C to 75°C	√	√	√	√	√	√
-30°C to 85°C	√	√	√	√	√	√

Dimensions(Unit:mm)



Pad 1 : Ground

Pad 3 : Ground

Pad 4 : Output

Pad 6 : Supply voltage

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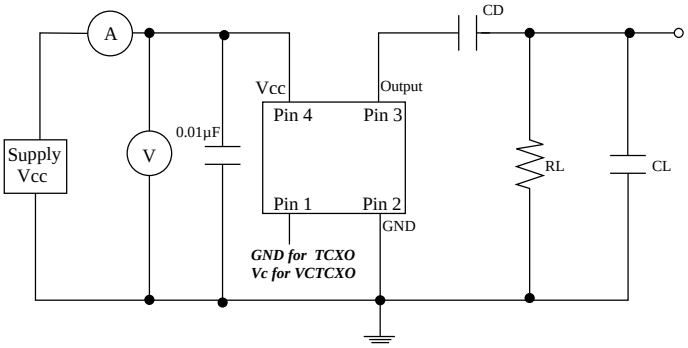
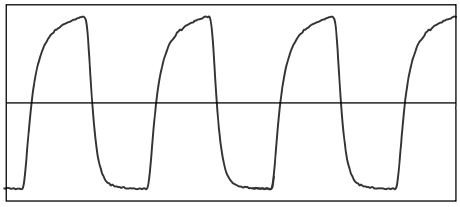
TCXO/VC-TCXO part number generation									
TX20SA	2600	M	E	X	B	X	Z	L	-PF
ACT series Code	Frequency (MHz) Ex. 26.00MHz =2600 8.00MHz = 0800 14.7456MHz = 1474	Temp. stability (±ppm)	Supply voltage (V)	Operating temp. range (°C)	Output wave	Electrical tuning (±ppm)	Duty Cycle	Tape & Reel	RoHS Code
TCXO = TX20SA	< 100MHz First 4 digit of frequency > 100MHz First 5 digit of frequency	0.5 = R 1.0 = P 1.5 = O 2.0 = N 2.5 = M 3.0 = L	1.8V = D 2.4V = J 2.8V = H 3.0V = E	0 ~ 50 = D -10 ~ +60 = F -20 ~ +70 = B -30 ~ +75 = W -30 ~ +85 = X	CSW = B	None = X	Not specified = Z	Loose = L 1000 = C 3000 = D	-PF

Note: It is important to suffix the above part number with full frequency required to give a completed part number as illustrated below.
Full Example part number : **TX20SA2600MEXBXZL-PF [26MHz], TX20SA1474MEXBXZL-PF [14.7456MHz]**

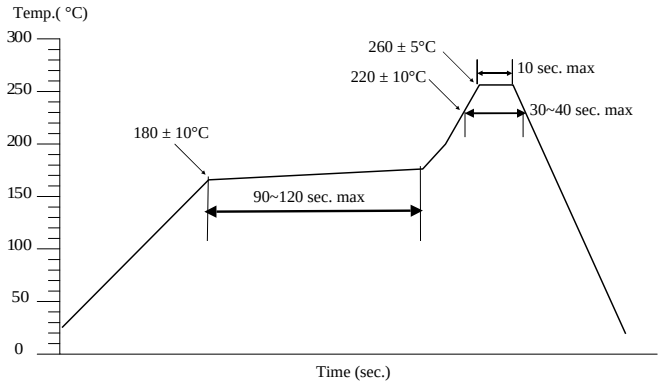
Test circuit



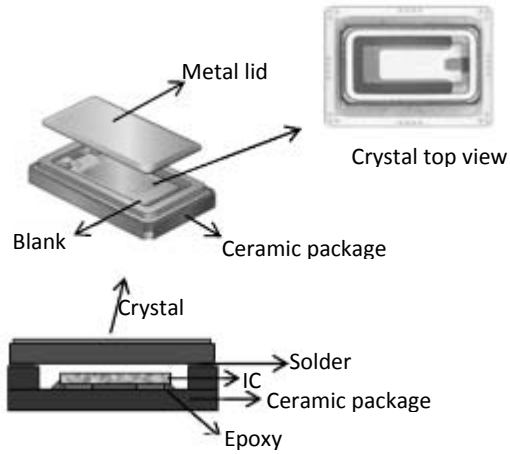
Clipped sine waveform



Solder reflow profile



TCXO construction



Drawing control: (Internal use only)
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