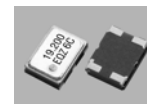


3.2 x 2.5 x 0.9mm SMD - Clipped Sinewave 12.6MHz to 40MHz

- Ultra-miniature SMD package 3.2 x 2.5 x 0.9mm
- Stability 0.5ppm over -30° to +85°C
- Supply Voltage from 0.6 Volts to 6.0 Volts
- High stability TCXO, ideal for GPS and similar applications


DESCRIPTION

XON-3200VHG series TCXOs are ceramic SMD TCXOs packaged in an the industry-standard, ultra-miniature 3.2 x 2.5mm package. This TCXO can be run from a supply voltage of 0.6 to 6.0 Volts. Stability is ± 0.5 ppm over -30° to +85°C.

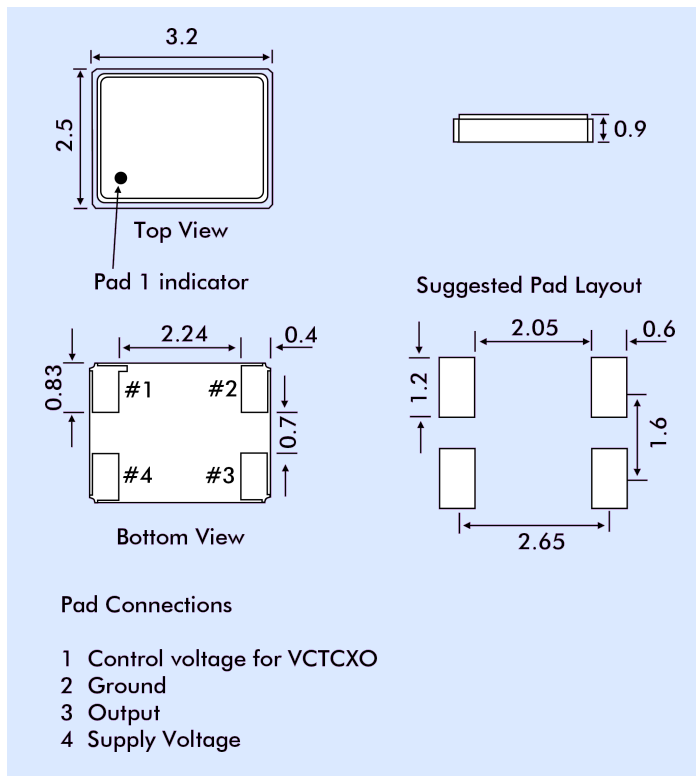
SPECIFICATION

Product Series Code:	XON-3200VHG
Frequency Range:	12.6MHz to 40.0MHz
Output Waveform:	Clipped Sinewave
Initial Calibration Tolerance*:	± 1.5 ppm at 25°C with Vcon = ½ Vdd DC
Frequency Stability	
vs. Temperature Range:	± 0.5 ppm over -30° to +85°C
vs. Input Voltage Change:	± 0.2 ppm max. VDD $\pm 5\%$
vs. Output Load Change:	± 0.2 ppm max. at 10k Ω $\pm 10\%$ with 10pF $\pm 10\%$
vs. Ageing:	± 1.0 ppm max./year at 25° $\pm 3^\circ$ C
Absolute Max. Ratings	
Supply Voltage:	-0.6 Volts to +6.0 Volts
Control Voltage (Vcon):	-0.6 Volts to Vdd+0.5 Volts
Storage Temperature:	-40°C to +90°C
Operating Conditions	
Operating Temperature:	-30° to +85°C (standard)
Input Voltage (Vdd):	Option 'F': +2.5 Volts $\pm 5\%$ Option 'H': +2.8 Volts $\pm 5\%$ Option 'J': +3.0 Volts $\pm 5\%$ Option 'K': +3.3 Volts $\pm 5\%$
Control Voltage (Vcon):	½ Vdd ± 1 VDC (Vdd = +2.5V, +2.8V, +3.0V or +3.3V)
Input Current:	2mA max.
Output	
Level:	0.8V p-p min.
Load:	10k Ω /10pF
Waveform:	Clipped Sinewave (DC Coupled)
Frequency Adjustment	
Voltage Control:	(at ½ Vdd ± 1 V) ± 9.0 to ± 15 ppm
Frequency Slope:	Positive
SSB Phase Noise:	-130dBc/HZ at 1kHz offset
Harmonics:	-5.0dBc max.
Start-up Time:	2ms max.
IR Reflow Resistance:	± 2.5 ppm max. after 2 x reflows (Vcon = ½Vdd DC at +25° $\pm 2^\circ$ C)
Reflow Condition:	+250° $\pm 10^\circ$ C for 10 seconds
Standard Frequencies:	16.38, 16.369, 19.200, 24.5535, 26.000 and 27.456MHz
Optional Operating Temperature:	See table

* Stability over temperature is measured from this initial frequency.

PACKAGE/MATERIAL COMPOSITION

Lid:	Metal
Base:	Ceramic
Sealing:	Seam weld
Terminal:	Tungsten (metalized)
Terminal Plating:	Gold (Au) over Nickel (N)
RoHS:	Compliant (Pb-free)

XON-3200VHG - OUTLINES AND DIMENSIONS

OPTIONAL TEMPERATURE RANGE

Low Limit/Symbol		High Limit/Symbol	
°C		+°C	
-10°	g	55	ff
-15	h	60	gg
-20	i	65	hh
-25	j	70	ii
-30	k	75	jj
-35	l	80	kk
-10	m	85	ll

PART NUMBERING PROCEDURE

Example: **XON-3200-VHG - xx**
Where 'xx' refers to the above temperature/stability table.