



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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- ▶ Smallest VCXO in Industry
- ▶ 3.2 x 2.5 mm Footprint
- ▶ Low current consumption
- ▶ Pb Free/RoHS Compliant

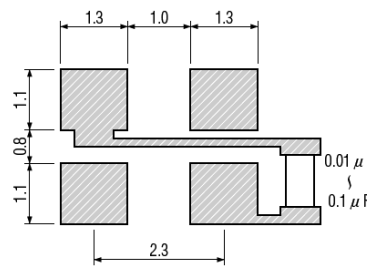
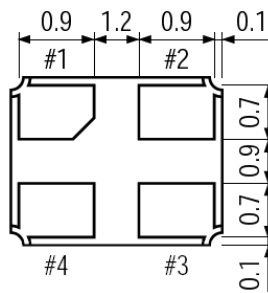
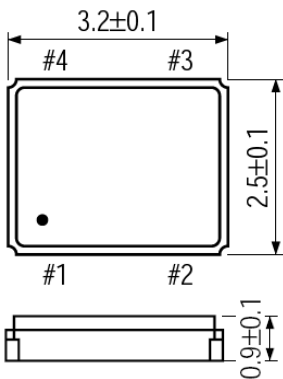
ECS-2532VXO SMD VCXO

ECS-2532VXO offers a 2.8V and 3.3V version, subminiature SMD VCXO. Ideal for today's high density applications.

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	ECS-2532VXO (+2.8V)			ECS-2532VXO (+3.3V)			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	
Frequency Range		2.000		54.000	2.000		54.000	MHz
Operating Temperature	Standard	-10		+70	-10		+70	°C
Storage Temperature		-40		+85	-40		+85	°C
Supply Voltage	VDD	+2.66	+2.8	+2.94	+3.135	+3.3	+3.465	VDC
Frequency Stability * Vco = 1/2 VDD	Option A			± 50			± 50	ppm
	Option B			± 30			± 30	ppm
Frequency vs. Input Voltage	VDD ±5%			± 5			± 5	ppm
Frequency Pulling Range		± 90			± 90			ppm
Control Voltage	Vcon = Pin#1	0	+1.4	+2.8	0	+1.65	+3.3	VDC
Frequency Slope	Positive							
Frequency Linearity				15			15	%
Modulation bandwidth	-3 dB	10			10			KHz
Vcon input impedance	Vcon-GND	100K			100K			Ω
Output Symmetry	@ 50% VDD level			40/60			60/40	%
Rise and Fall Times 20% to 80% VDD level	2.0 MHz to 10.0 MHz			10			10	ns
	10.1 MHz to 54.0 MHz			6			6	ns
"0" level	VOL			10% VDD			10% VDD	VDC
"1" level	VOH	90% VDD			90% VDD			VDC
Output Load	CMOS			15			15	pF
Startup time				10			10	ms
Input Current	No Load			5			8	mA
SSB Phase Noise	at 1 KHz offset			-120			-120	dBc/Hz
Aging (first year)	at +25°C ±3°C			± 5			± 5	ppm

DIMENSIONS (mm)



Pin Connections	
Pin #1	Vcontrol
Pin #2	GND
Pin #3	Output
Pin #4	VDD

Figure 1) Top, Side and Bottom views

Figure 2) Suggested Land Pattern

PART NUMBERING GUIDE: Example ECS-2532VXO-270B-2.8

ECS	Series	Frequency Abbreviation	Stability	Voltage
	2532VXO	270 = 27.000 MHz See Frequency Abbreviations (Pg 2)	A = ± 50 ppm B = ± 30 ppm	2.8 = +2.8 VDC 3.3 = +3.3 VDC



Frequency Abbreviations

FREQUENCY MHz	CODE
20.000	200
27.000	270
54.000	540

TEST CIRCUIT

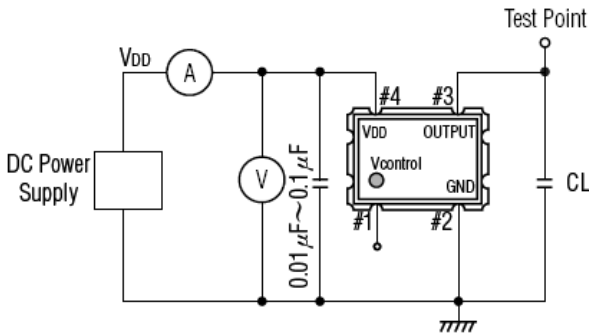


Figure 1) Suggested Reflow Profile

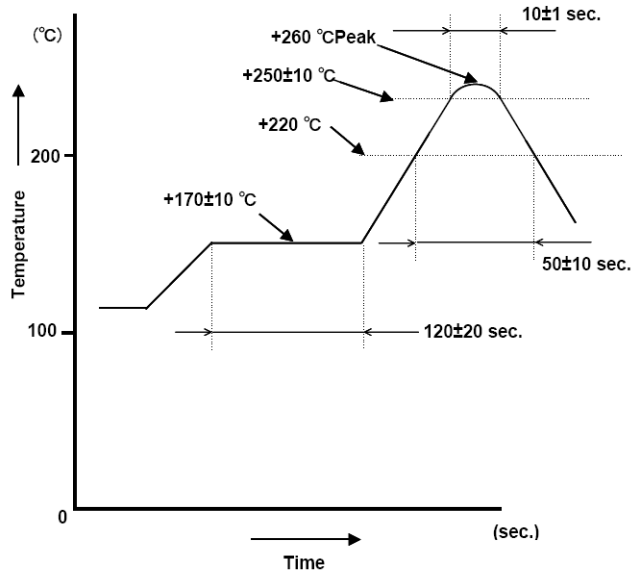
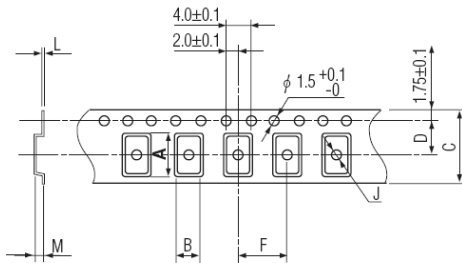


Figure 3) Suggested Reflow Profile

TAPE DIMENSIONS (mm)



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

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

Figure 2) Pocket Tape Dimensions