



BVTFxxCS SERIES VCTCXO

BROOKDALE FREQUENCY CONTROLS, INC.



FEATURES:

- SMD FR-4 PACKAGE VCTCXO
- CLIPPED SINEWAVE OUTPUT
- **RoHS COMPLIANT; Pb FREE**
- **REQUEST A CERTIFICATE OF COMPLIANCE**
- FREQUENCY RANGE 8 to 40.0MHz
- FREQUENCY STABILITY AS TIGHT AS ±1.0 ppm
- -40 to +85°C TEMPERATURE RANGE AVAILABLE
- **REQUEST A QUOTE ON THIS DEVICE**

BVTFxxCS VCTCXO SERIES SPECIFICATIONS

Frequency Range	8 to 40.0MHz						
Output Wave Form	Clipped Sinewave						
Frequency Tolerance	±1.0ppm @25°C± 2°C	±1.5 ppm@25°C± 2°C	±2.0 ppm@25°C± 2°C	±2.5 ppm@25°C± 2°C	±4.0 ppm	±5.0 ppm	
Frequency Stability	±1.0ppm	±1.5 ppm	±2.0 ppm	±2.5 ppm	±3.0 ppm	±4.0 ppm	±5.0 ppm
Supply Current	3mA Max						
Output Load	10k Ω /10pF						
Pull Range	±5.0ppm / ±10.0ppm / ±15.0ppm / ±20.0ppm / ±30.0ppm / ±40.0ppm / ±50.0ppm						
Supply Voltage (Vcc)	5Vdc ±5%			3.3Vdc ±5%			
Control Voltage(Vcon)	2.5Vdc			1.65Vdc			
Control Voltage Range	0.5~4.5V (Suffix Blank)			0.3~3.0V (suffix E)			
	0~5.0V (Suffix A)			0.5~2.5V (suffix F)			
	0.5~4.75V (Suffix C)			0~3.3V (suffix G)			
	0.5~5.0V (Suffix D)						
Output Level	1.0Vpp min			0.8Vpp Min.			
Aging	±1.0ppm Max / Year						
Storage Temperature	-40 to 85°C						
MSL Level	MSL 1 per IPC/JEDEC-STD-020C						
Humidity	85% ±3% RH, 85°C, 168 Hours						
Hermeticity	Leak rate 2x10 ⁻⁸ ATM-cm ³ /sec max.						
Solderability	MIL-STD-202F method 208E						
Vibration	MIL-STD-202F method 204, (500 to 2000Hz 6g)(10-500Hz 5g)						
Shock	MIL-STD-202F method 213B, test conditions E, 1000GG 1/2sine wave						
SSB Phase Noise At 25°C	Offset	10 Hz	100Hz	1 kHz	10 kHz	100 kHz	1 MHz
	3.3V-10.0MHz	98.43dBc/Hz	124.8dBc/Hz	145.26dBc/Hz	156.75 dBc/Hz	159.41 dBc/Hz	159.72dBc/Hz
	3.3V-40.0MHz	81.84dBc/Hz	117.15dBc/Hz	141.06dBc/Hz	149.92dBc/Hz	155.74dBc/Hz	N/A
Frequency Stability (max)	± 1.0 ppm	± 1.5 ppm	± 2.0 ppm	± 2.5 ppm	± 3.0 ppm	± 4.0 ppm	± 5.0 ppm
Temperature Range (°C)	0 to 60°C	Contact us	YES	YES	YES	YES	YES
	0 to 70°C	N/A	Contact us	YES	YES	YES	YES
	-10 to 60°C	N/A	Contact us	YES	YES	YES	YES
	-10 to 70°C	N/A	Contact us	YES	YES	YES	YES
	-20 to 70°C	N/A	N/A	Contact us	YES	YES	YES
	-30 to 75°C	N/A	N/A	N/A	Contact us	YES	YES
	-40 to 85°C	N/A	N/A	N/A	N/A	N/A	Contact us

BVTF16xxT VCTCXO SERIES PART NUMBER GUIDE

MODEL	# of Pads	STABILITY	Output	Voltage	Control Voltage (Range)	OPER. TEMP. (°C)	Freq. Tolerance @25°C	Pull Range	FREQ
BVTF	4= 4 Pads	01=±1ppm	CS=Clipped	33=3.3V	Blank=2.5V(.5~4.5V)	B=0~60°C	Blank=±2.5ppm	05=±5ppm	
	6= 6 Pads	15 =±1.5ppm	Sinewave	5=5.0V	A=2.5V(0~5.0V)	A=0~70°C	A = ±1.0 ppm	10=±10ppm	
		02 =±2 ppm			C=2.5V(0.5~4.75V)	C =-10~60°C	B = ±1.5 ppm	15=±15ppm	
		25 =±2.5ppm			D=2.5V(0.5~5.0V)	H=-10~70°C	C = ±2.0 ppm	20=±20ppm	
		03 =±3ppm			E=1.65V(0.3~3.0V)	D=-20~70°C		30=±30ppm	
		04 =±4ppm			F=1.65V(0.5~2.5V)	E=-30~75°C		40=±40ppm	
		05 =±5ppm			G=1.65V(0~3.3V)	M=-40~85°C		50=±50ppm	

PART NUMBER EXAMPLE

BVTF	4	02	CS	5	A	A		05	10.0
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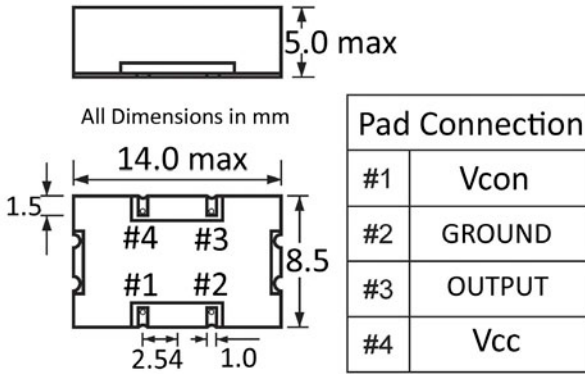


BVTFxxCS SERIES VCTCXO

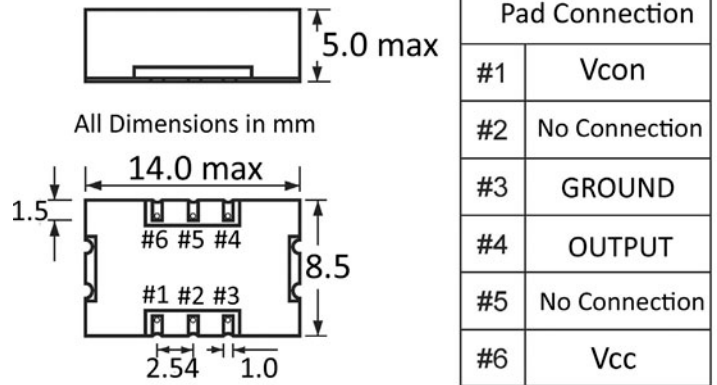
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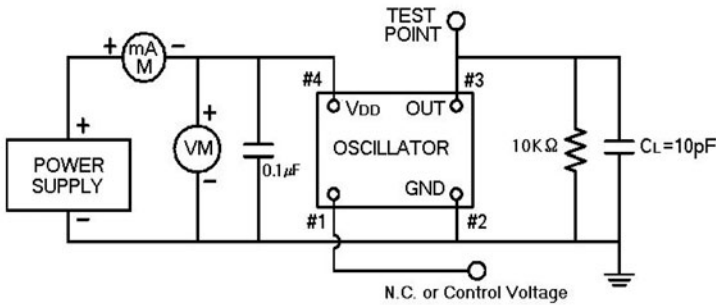
FR-4 (4 PAD PACKAGE)



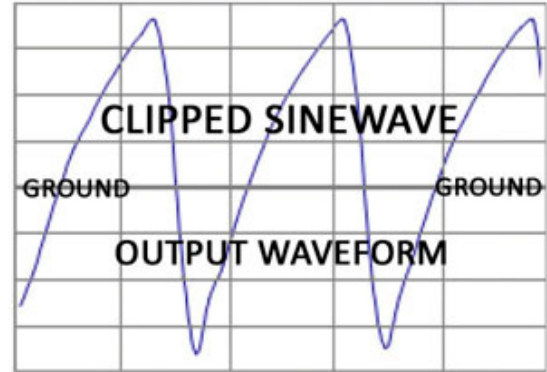
FR-4 (6 PAD PACKAGE)



CLIPPED SINEWAVE TEST CIRCUIT



NOTE: C_L includes probe and fixture capacitance



PHASE NOISE AT 10.0 MHz and 40.0MHz

