



# BVTA16xxS SERIES VCTCXO

## BROOKDALE FREQUENCY CONTROLS, INC.



### FEATURES:

- DIL-14 THRU-HOLE PACKAGE (W/TRIMMER ACCESS)
- SINEWAVE OUTPUT
- **RoHS Compliant; Pb FREE**
- **REQUEST A CERTIFICATE OF COMPLIANCE**
- FREQUENCY ADJUSTMENT TRIMMER ( $\pm 3$ PPM MIN)
- FREQUENCY STABILITY AS TIGHT AS  $\pm 1.0$  PPM
- -40 TO +85°C TEMPERATURE RANGE AVAILABLE
- **REQUEST A QUOTE ON THIS DEVICE**

### BVTA16xxS VCTCXO SERIES SPECIFICATIONS

Supply Voltage (Vcc)	5Vdc $\pm 5\%$		3.3Vdc $\pm 5\%$				
Frequency Range	8 to 35.0MHz						
Output Level	1.0Vpp min						
Output Wave Form	Sinewave						
Frequency Tolerance @25°C $\pm 2^\circ\text{C}$	$\pm 1.0$ ppm	$\pm 1.5$ ppm	$\pm 2.0$ ppm	$\pm 2.5$ ppm (Standard)			
Supply Current	20mA Max @ 20MHz						
Load	50 $\Omega$						
Harmonics Level	< -30dBc						
Sputious Level	< -60dBc						
Pull Range	$\pm 5.0$ ppm / $\pm 10.0$ ppm / $\pm 15.0$ ppm / $\pm 20.0$ ppm / $\pm 30.0$ ppm / $\pm 40.0$ ppm / $\pm 50.0$ ppm						
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)						
Frequency Stability (max)	$\pm 1.0$ ppm	$\pm 1.5$ ppm	$\pm 2.0$ ppm	$\pm 2.5$ ppm	$\pm 3.0$ ppm	$\pm 4.0$ ppm	$\pm 5.0$ ppm
Temperature Range ( $^\circ\text{C}$ )	0 to 60°C	Contact us	YES	YES	YES	YES	YES
	0 to 70°C	Contact us	YES	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	Contact us	YES	YES	YES	YES
	-30 to 75°C	N/A	N/A	Contact us	YES	YES	YES
-40 to 85°C	N/A	N/A	N/A	Contact us	YES	YES	
Aging	$\pm 1.0$ ppm Max / Year						
Storage Temperature	-40 to 85°C						
MSL Level	MSL 1 per IPC/JEDEC-STD-020C						
Humidity	85% $\pm 3\%$ RH, 85°C, 168 Hours						
Hermeticity	Leak rate $2 \times 10^{-8}$ ATM-cm <sup>3</sup> /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						

### BTA16xxS TCXO SERIES PART NUMBER GUIDE

MODEL	STABILITY	Output	Voltage	Control Voltage(Range)	OPER. TEMP ( $^\circ\text{C}$ )	FREQ. TOLERANCE	Pull Range	FREQ
BVTA16	01= $\pm 1$ ppm	S= Sinewave	5 = 5.0V	Blank=2.5V(0.5~4.5V)	B = 0°C TO 60°C	Blank= $\pm 2.5$ ppm	05= $\pm 5$ ppm	
	15 = $\pm 1.5$ ppm		33 = 3.3V	A=2.5V(0~5.0V)	A = 0°C TO 70°C	A = $\pm 1.0$ ppm	10= $\pm 10$ ppm	
	02 = $\pm 2$ ppm			C=2.5V(0.5~4.75V)	C = -10 to 60°C	B = $\pm 1.5$ ppm	15= $\pm 15$ ppm	
	25 = $\pm 2.5$ ppm			D=2.5V(0.5~5.0V)	H = -10°C TO 70°C	C = $\pm 2.0$ ppm	20= $\pm 20$ ppm	
	03 = $\pm 3$ ppm			E=1.65V(0.3~3.0V)	D = -20°C TO 70°C		30= $\pm 30$ ppm	
	04 = $\pm 4$ ppm			F=1.65V(0.5~2.5V)	E = -30°C TO 75°C		40= $\pm 40$ ppm	
	05 = $\pm 5$ ppm			G=1.65V(0~3.3V)	M = -40°C TO 85°C		50= $\pm 50$ ppm	

### PART NUMBER EXAMPLE

BTA16	02	S	33		A		10	10.0
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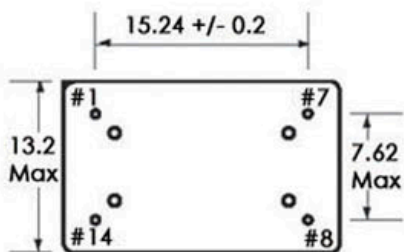
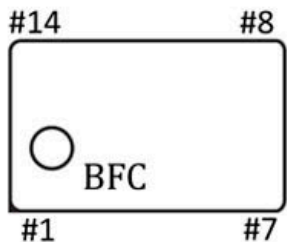


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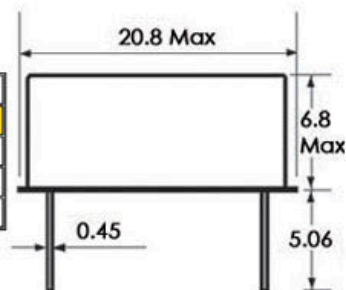


## PACKAGE DIMENSIONS



PIN FUNCTION	
#1	NO CONNECTION
#7	GROUND
#8	OUTPUT
#14	Vcc

All dimensions in mm



## SINEWAVE TCXO TEST CIRCUIT

