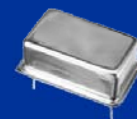




BVT16xxT SERIES VCTCXO

BROOKDALE FREQUENCY CONTROLS, INC.



- HERMETICALLY SEALED DIL-14 THRU-HOLE PACKAGE
- HCMOS SQUARE WAVE OUTPUT
- RoHS Compliant; Pb FREE
- REQUEST A CERTIFICATE OF COMPLIANCE
- WIDE FREQUENCY RANGE: 1.0 to 200MHz
- FREQUENCY STABILITY AS TIGHT AS ±1.0 ppm
- -40 TO +85°C TEMPERATURE RANGE AVAILABLE
- REQUEST A QUOTE ON THIS DEVICE

BVT16xxT VCTCXO SERIES									
Frequency Range	1.0 to 200MHz (Fund : up to 40MHz)			1.0 to 160MHz (Fund : up to 40MHz)					
Output Wave Form	Square wave HCMOS								
Frequency Tolerance@25°C± 2°C	±1.0ppm / ±1.5 ppm / ±2.0 ppm / ±2.5 ppm / ± 3.0 ppm/ ± 4.0 ppm/ ± 5.0 ppm								
Supply Current	20mA @ 20.0 MHz								
Duty Cycle	60/40%, 55/45%								
Rise Time and Fall Time	5.0ns max. 20% ↔ 80% of waveform								
Start-Up Time.	10ms max.								
Output Load	15pF/10TTL								
Supply Voltage (Vcc)	5Vdc ±5%			3.3Vdc ±5%					
Control Voltage (Vcon)	2.5Vdc ± 2.0V			1.65Vdc ± 1.35V					
Control Voltage Range	0.5 to 4.5V (Suffix "Blank")			0.3 to 3.0V (P/N Suffix "E")					
	0 to 5.0 V (P/N Suffix "A")			0 to 3.3V (P/N Suffix "G")					
	0.5 to 4.75V (P/N Suffix "C")			0.5 to 2.5V (P/N Suffix "F")					
	0.5 to 5.0V (P/N Suffix "D")								
Pull Range	±5.0ppm / ±10.0ppm / ±15.0ppm / ±20.0ppm / ±30.0ppm / ±40.0ppm / ±50.0ppm								
Aging	±1.0ppm Max / Year								
Storage Temperature	-40 to 85°C								
SSB Phase Noise At 25°C	Offset	10 Hz	100Hz	1 kHz	10 kHz	100 kHz	1 MHz		
	3.3V-10.0MHz	98.4dBc/Hz	124.8dBc/Hz	145.3dBc/Hz	156.8dBc/Hz	159.4dBc/Hz	159.7dBc/Hz		
	3.3V146.2857MHz	48.7dBc/Hz	80.2dBc/Hz	106.7dBc/Hz	118.9dBc/Hz	139.8dBc/Hz	150.5dBc/Hz		
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	YES	YES
	0 to 70°C	Contact us	YES	YES	YES	YES	YES	YES	YES
	-10 to 60°C	N/A	Contact us	YES	YES	YES	YES	YES	YES
	-10 to 70°C	N/A	Contact us	YES	YES	YES	YES	YES	YES
	-20 to 70°C	N/A	Contact us	YES	YES	YES	YES	YES	YES
	-30 to 75°C	N/A	N/A	Contact us	YES	YES	YES	YES	YES
	-40 to 85°C	N/A	N/A	N/A	Contact us	YES	YES	YES	YES
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. *Crystal component only*								
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								
BVT16xxT SERIES VCTCXO PART NUMBER GUIDE									
MODEL	STABILITY	Output	Voltage	Vcon / (Vcon Range)	OPERATING TEMP(°C)	Symmetry	Freq. Tolerance @25°C± 2°C	Pull Range	FREQ
BVT16	01=±1ppm	T=HCMOS	5 =5.0V	Blank=2.5V/(0.5~4.5)	B =0~60°C	Blank=60/40%	Blank=±2.5ppm	05=±5ppm	
	15 =±1.5ppm		33=3.3V	A=2.5V/(0~5.0V)	A =0~70°C	S= 55/45%	A= ±1.0ppm	10=±10ppm	
	02 =±2 ppm			C=2.5V/(0.5~4.75V)	C=-10~60°C		B= ±1.5ppm	15=±15ppm	
	25 =±2.5ppm			D=2.5V/(0.5~5.0V)	H=-10~70°C		C = ±2.0ppm	20=±20ppm	
	30 =±3ppm			E=1.65V/(0.3 ~3.0V)	D=-20~70°C		D= ±3.0ppm	30=±30ppm	
	40 =±4ppm			F =1.65V/(0 ~3.3V)	E =-30~75°C		E = ±4.0ppm	40=±40ppm	
	50 =±5ppm			G=1.65V/(0.5~2.5V)	M=-40~ 85°C		F = ±5.0ppm	50=±50ppm	
PART NUMBER EXAMPLE									
BVT16	02	T	33	E	A	S		15	10.0

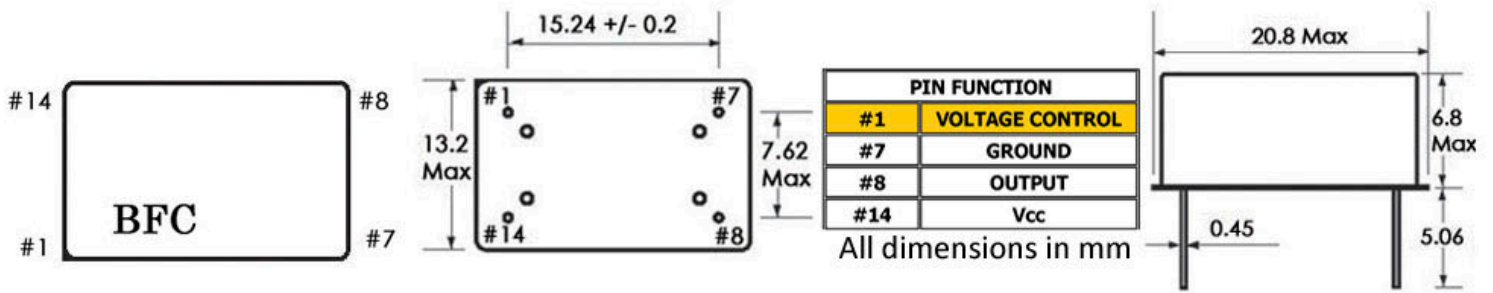


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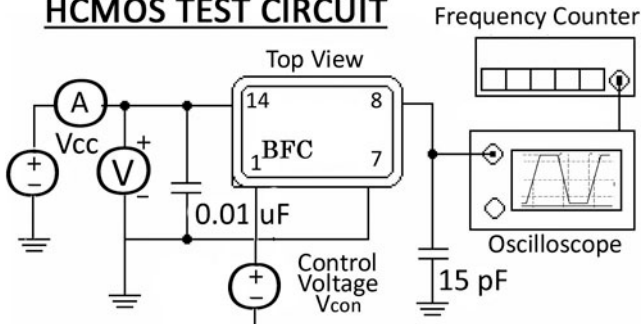
BROOKDALE FREQUENCY CONTROLS, INC.



PACKAGE DIMENSIONS



HCMOS TEST CIRCUIT



HCMOS OUTPUT WAVEFORM

