



BVT16xxT SERIES

HCMOS/TTL DIL-14 VCTCXO



- HERMETICALLY SEALED DIL-14 THRU-HOLE PACKAGE
- HCMOS SQUARE WAVE OUTPUT
- **RoHS Compliant**
- WIDE FREQUENCY RANGE: 1.0 to 200MHz
- FREQUENCY STABILITY AS TIGHT AS ± 0.5 ppm
- -40 TO +85°C TEMPERATURE RANGE AVAILABLE

BVT16xxT VCTCXO SERIES								
Frequency Range	1.0 to 200MHz (Fund : up to 40MHz)							
Output Wave Form	Square wave TTL/ HCMOS							
Supply Current	20mA @ 20.0 MHz							
Duty Cycle	60/40%, 55/45%							
Rise Time and Fall Time	5.0ns max. 20% \leftrightarrow 80% of waveform							
Start-Up Time.	10ms max.							
Output Load	15pF/10TTL							
Output Level	TTL			HCMOS				
	Level-1(V _H)	2.4V			90%V _{CC}			
	Level-0(V _L)	0.4V			10%V _{CC}			
Supply Voltage (Vcc)	5Vdc $\pm 5\%$			3.3Vdc $\pm 5\%$				
Control Voltage (Vcon)	2.5Vdc $\pm 2.0V$			1.65Vdc $\pm 1.35V$				
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 (Minimum)	± 5.0 ppm / ± 10.0 ppm / ± 15.0 ppm / ± 20.0 ppm / ± 30.0 ppm							
Aging	± 1.0 ppm 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	
Frequency Control	Slope/Linearity	Positive / 10%						
	Input Impedance	100K Ohms						
Frequency Stability Vs.	Supply Voltage	± 0.3 ppm (Vcc $\pm 5\%$ change)						
	Load Changes	± 0.3 ppm (Load $\pm 5\%$ change)						
	Aging	± 1.0 ppm Max / Year						
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	Available	Available	Available	Available	Available	Available
	0 to 70°C	Contact us	Contact us	Available	Available	Available	Available	Available
	-10 to 60°C	Contact us	Contact us	Available	Available	Available	Available	Available
	-10 to 70°C	Contact us	Contact us	Available	Available	Available	Available	Available
	-20 to 70°C	Contact us	Contact us	Contact us	Available	Available	Available	Available
	-30 to 75°C	N/A	Contact us	Contact us	Contact us	Available	Available	Available
	-40 to 85°C	N/A	N/A	Contact us	Contact us	Contact us	Available	Available

BVT16xxT SERIES VCTCXO PART NUMBER GUIDE

MODEL	STABILITY	Output	Voltage	Vcon / (Vcon Range)	OPERATING TEMP(°C)	Symmetry	Pull Range(Minimum)	FREQ
BVT16	01= ± 1 ppm	T=HCMOS	5 =5.0V	Blank=2.5V/(0.5~4.5)	Blank =0~70°C	Blank=60/40%	05= ± 5 ppm	
	15= ± 1.5 ppm		33=3.3V	A=2.5V/(0~5.0V)	B =0~60°C	S= 55/45%	10= ± 10 ppm	
	02 = ± 2 ppm			C=2.5V/(0.5~4.75V)	C=-10~60°C		15= ± 15 ppm	
	25 = ± 2.5 ppm			D=2.5V/(0.5~5.0V)	H=-10~70°C		20= ± 20 ppm	
	30 = ± 3 ppm			E=1.65V/(0.3 ~3.0V)	D=-20~70°C		30= ± 20 ppm	
	40 = ± 4 ppm			F =1.65V/(0 ~3.3V)	E =-30~75°C			
	50 = ± 5 ppm			G=1.65V/(0.5~2.5V)	M=-40~ 85°C			

Add Suffix "G" After Part Number For Gull Wing Lead Option

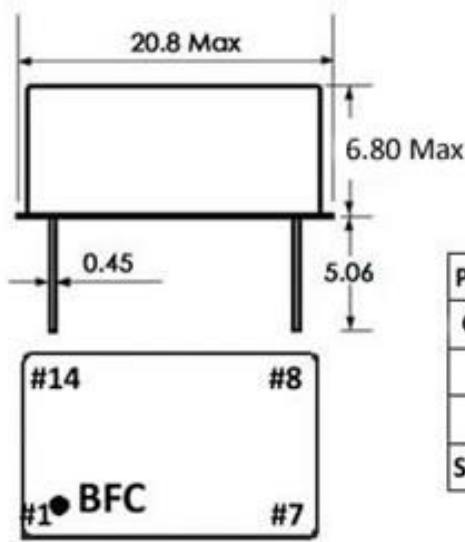
PART NUMBER EXAMPLE

BVT16	02	T	33	E	A		15	10.0
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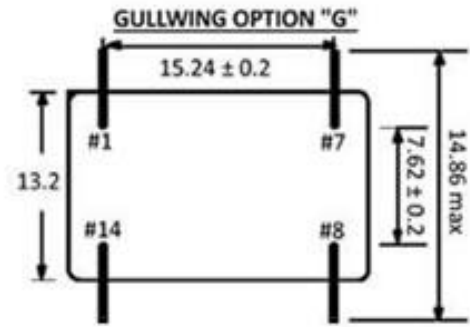
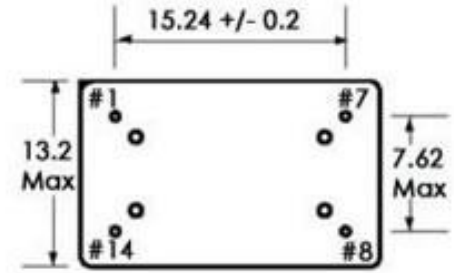


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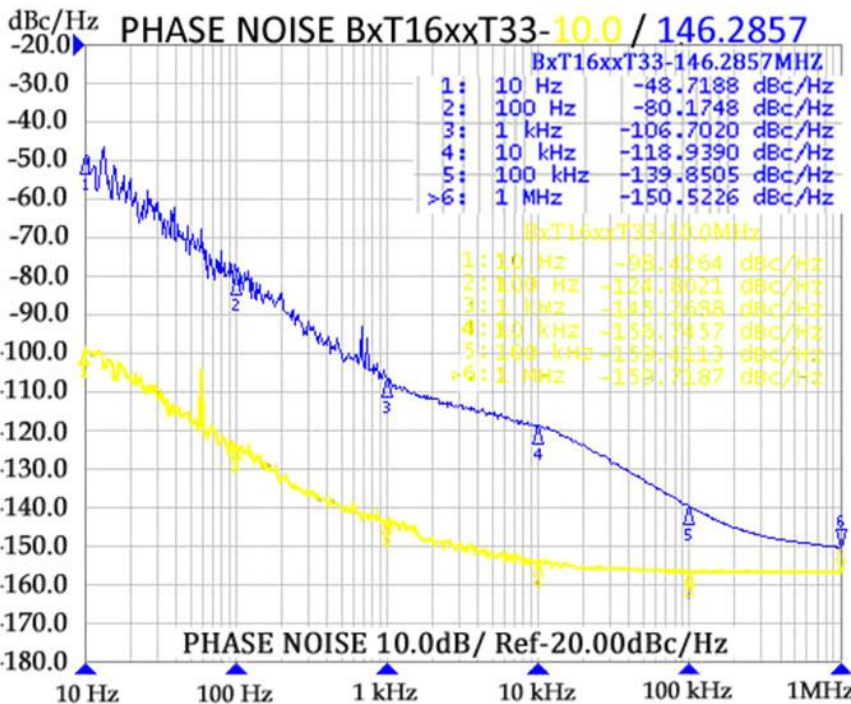
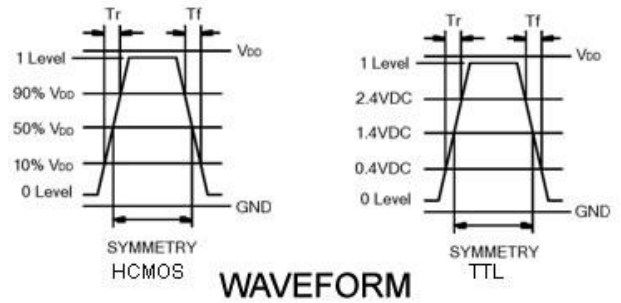
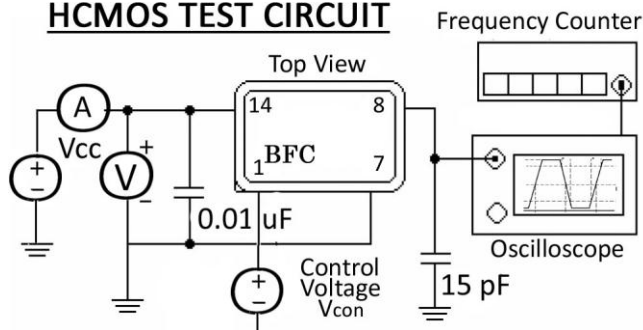
HCMOS/TTL DIL-14 VCTCXO



PIN CONNECTION	PIN #
Control Voltage	#1
GROUND	#7
OUTPUT	#8
SUPPLY VOLTAGE	#14



HCMOS TEST CIRCUIT



TYPICAL APPLICATIONS

- PCS BASE STATIONS
- Land Mobile Radios
- Cellular Telephony
- Radio in the Local Loop