



# BV1523 SERIES

## HCMOS/TTL DIL-14 VCXO

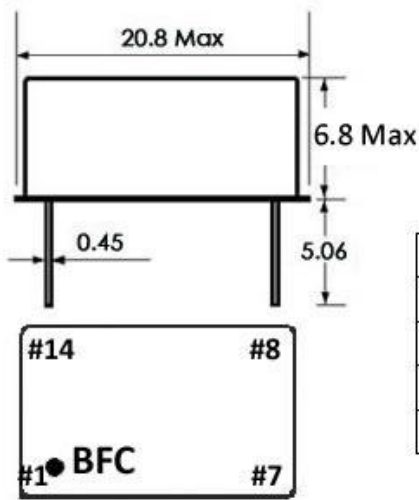


- HERMETICALLY SEALED DIL-14 THRU-HOLE PACKAGE
- HCMOS / TTL SQUAREWAVE OUTPUT
- 3.3 OR 5.0V DC SUPPLY VOLTAGE
- **RoHS COMPLIANT**
- WIDE ARRAY OF PULLABILITY OPTIONS ( 50-300ppm)
- FREQUENCY STABILITY AS TIGHT AS  $\pm 10$  ppm
- -40 TO +85°C TEMPERATURE RANGE AVAILABLE
- RUGGED ENCAPSULATED UM-1 CRYSTAL DESIGN

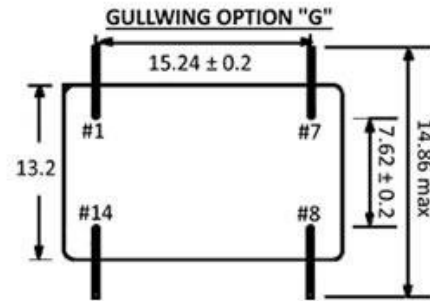
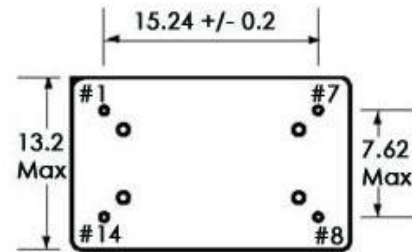
BV1523 VCXO SERIES								
Frequency Range		500kHz to 200.0MHz						
Output Wave Form		HCMOS/TTL SQUAREWAVE						
Frequency Stability		$\pm 10$ ppm	$\pm 15$ ppm	$\pm 20$ ppm	$\pm 25$ ppm	$\pm 50$ ppm	$\pm 100$ ppm	
Temperature Range (°C)	0 to 50°C	Available	Available	Available	Available	Available	Available	
	0 to 70°C (Standard)	Available	Available	Available	Available	Available	Available	
	-10 to 60°C	Available	Available	Available	Available	Available	Available	
	-10 to 70°C	Available	Available	Available	Available	Available	Available	
	-20 to 70°C	Available	Available	Available	Available	Available	Available	
	-30 to 75°C	Contact Us	Available	Available	Available	Available	Available	
	-40 to 85°C	Contact Us	Available	Available	Available	Available	Available	
Frequency Stability	Vs. Supply Voltage	$\pm 1.0$ ppm (Vcc $\pm 5\%$ change)						
	Vs. Load Changes	$\pm 1.0$ ppm (Load $\pm 5\%$ change)						
	Vs. Load Changes	$\pm 1.0$ ppm						
Supply Current		20mA Max @ 20MHz						
Load		15pF/10TTL (Standard) * Contact Sales for Custom Load Specification Options *						
Pull Range		$\pm 50$ ppm	$\pm 75$ ppm	$\pm 100$ ppm	$\pm 150$ ppm	$\pm 200$ ppm	$\pm 250$ ppm	$\pm 300$ ppm
Supply Voltage (Vcc)		5Vdc $\pm 5\%$ ( Standard )			3.3Vdc $\pm 5\%$			
Control Voltage(Vcon)		2.5Vdc ( Standard )			1.65Vdc			
Control Voltage Range		0.5~4.5V (Standard (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)						
Slope		Positive						
Linearity		10%						
Input Impedance		100K Ohms						
SSB Phase Noise At 25°C	Offset	10 Hz	100Hz	1 kHz	10 kHz	100 kHz		
	3.3V-51.840MHz	-82dBc/Hz	-115dBc/Hz	-140 dBc/Hz	-150 dBc/Hz	-155 dBc/Hz		
	3.3V-155.520MHz	-80dBc/Hz	-110dBc/Hz	-125dBc/Hz	-135dBc/Hz	-142dBc/Hz		
Aging		$\pm 3.0$ ppm Max/Year(Standard) * Contact Sales for Custom Aging Options *						
Storage Temperature		-55 to 125°C						
Output Level		TTL			HCMOS			
		Level-1(VH):2.4V			Level-1(VH): 90%Vcc			
		Level-0(VL):0.4V			Level-0(VL): 10%Vcc			
B1523 Part Number Table								
MODEL	STABILITY	Pull Range	Voltage	Control Voltage(Range)	OPER. TEMP. (°C)	Pkg. Options	FREQ.	
BV1523	B= $\pm 25$ ppm	A= $\pm 100$ ppm	Blank= 5.0V	Blank= 2.5V(0.5~4.5V)	Blank=0°C TO 70°C	G=Gull Wing Leads	In MHz	
	A= $\pm 20$ ppm	B = $\pm 50$ ppm	3=3.3V	A=2.5V(0~5.0V)	B=0°C TO 60°C			
	C= $\pm 15$ ppm	C= $\pm 75$ ppm		B=2.5V(0.5~4.75V)	C =-10 to 60°C			
	D = $\pm 10$ ppm	D= $\pm 150$ ppm		C=2.5V(0.5~5.0V)	H=-10°C TO 70°C			
	E= $\pm 50$ ppm	E= $\pm 200$ ppm		D=1.65V(0.3~3.0V)	D=-20°C TO 70°C			
	F= $\pm 100$ ppm	F= $\pm 250$ ppm		E=1.65V(0.5~2.5V)	E=-30°C TO 75°C			
		G= $\pm 300$ ppm		F=1.65V(0~3.3V)	M=-40°C TO 85°C			
PART NUMBER EXAMPLE								
BV1523	B	A					10.0	

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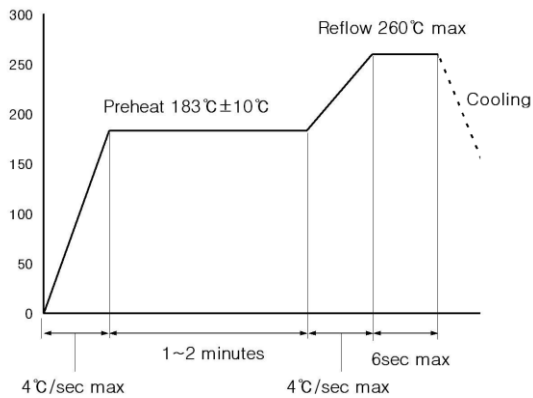
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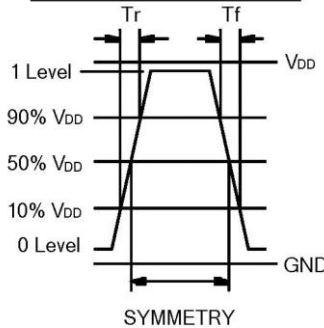
PIN CONNECTION	PIN #
CONTROL VOLTAGE	#1
GROUND	#7
OUTPUT	#8
SUPPLY VOLTAGE	#14



### SOLDER REFLOW GUIDE



### HCMOS WAVEFORM



### TTL WAVEFORM

