



**FEATURES**

- ✓ High Stability vs. Temperature
- ✓ Quick Warm-Up Time
- ✓ Low Age Rates
- ✓ Low Phase Noise
- ✓ 25x25mm Package

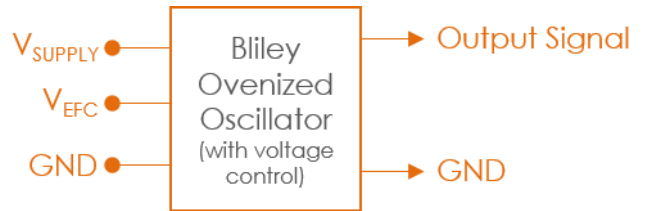
**Oven Controlled Oscillator**

#blileytakesyoufurther

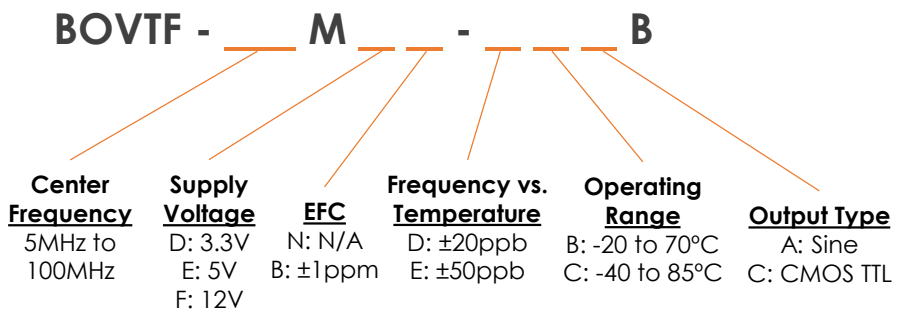
**Description**

Bliley high performance OXCO product offering is a result of 85 years in the Frequency Control Industry. Modern layout topologies enable Bliley to engineer and produce robust designs for all applications.

**Block Diagram**



**Part Number Configuration**



\*Not all combinations of options may be possible

\*\*Other options may be available

## Performance Specifications

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Frequency Range		5		100	MHz
Initial Tolerance	@ +25°C±1°C			±100	ppb
Warm Up Time	To initial tolerance			3	Min
Frequency Stability					
vs. Temperature	See Options (Max) Referenced to +25°C		±20, ±50		ppb
vs. Load	5% Change		±2		ppb
vs. Supply Voltage	5% Change		±2		ppb
ADEV (Short-Term Stability)	T = 1 Second		5		E-12
Aging					
	After 30 Days Operation				
Per Day				±1.0	ppb
1 <sup>st</sup> Year				±100	ppb
Supply Voltage	Option D	3.13	3.3	3.47	Vdc
	Option E	4.75	5	5.25	Vdc
	Option F	11.4	12	12.6	Vdc
Power Dissipation					
Start Up	@ +25°C			3	W
Steady State	@ +25°C		1.5		W
Electronic Frequency Control					
Voltage Range		0		Vdd	Vdc
Center Voltage			Vdd/2		Vdc
Frequency Range		±1			ppm
Slope			positive		
Input Impedance			100		kΩ
Linearity			10		%

Note: Values typical of 10MHz units

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## Performance Specifications

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Output Characteristics (CMOS/TTL)		MIN	TYP	MAX	
High Output Level	Logic "1"	90% Vdd			Vdc
Low Output Level	Logic "0"	10% Vdd			Vdc
Rise/Fall Time		10			nSec
Duty Cycle		45	50	55	%
Load		15			pF
Output Characteristics (Sinusoid)		MIN	TYP	MAX	
Output Level		9.0			dBm
VSWR	Into 50 $\Omega$	1.5:1			
Harmonics		-30			dBc
Load		45	50	55	$\Omega$

Parameter	Conditions	Values		Unit
		TYP	TYP	
Phase Noise		TYP	TYP	
Phase Noise (10 MHz)	Tested at +25°C	Sinusoid	CMOS	
	1Hz	-90	-90	dBc/Hz
	10Hz	-120	-120	dBc/Hz
	100Hz	-140	-140	dBc/Hz
	1kHz	-145	-145	dBc/Hz
	10kHz	-150	-150	dBc/Hz
	100kHz	-155	-155	dBc/Hz

Ultra-low phase noise options available in Bliley Apollo series OCXO Families

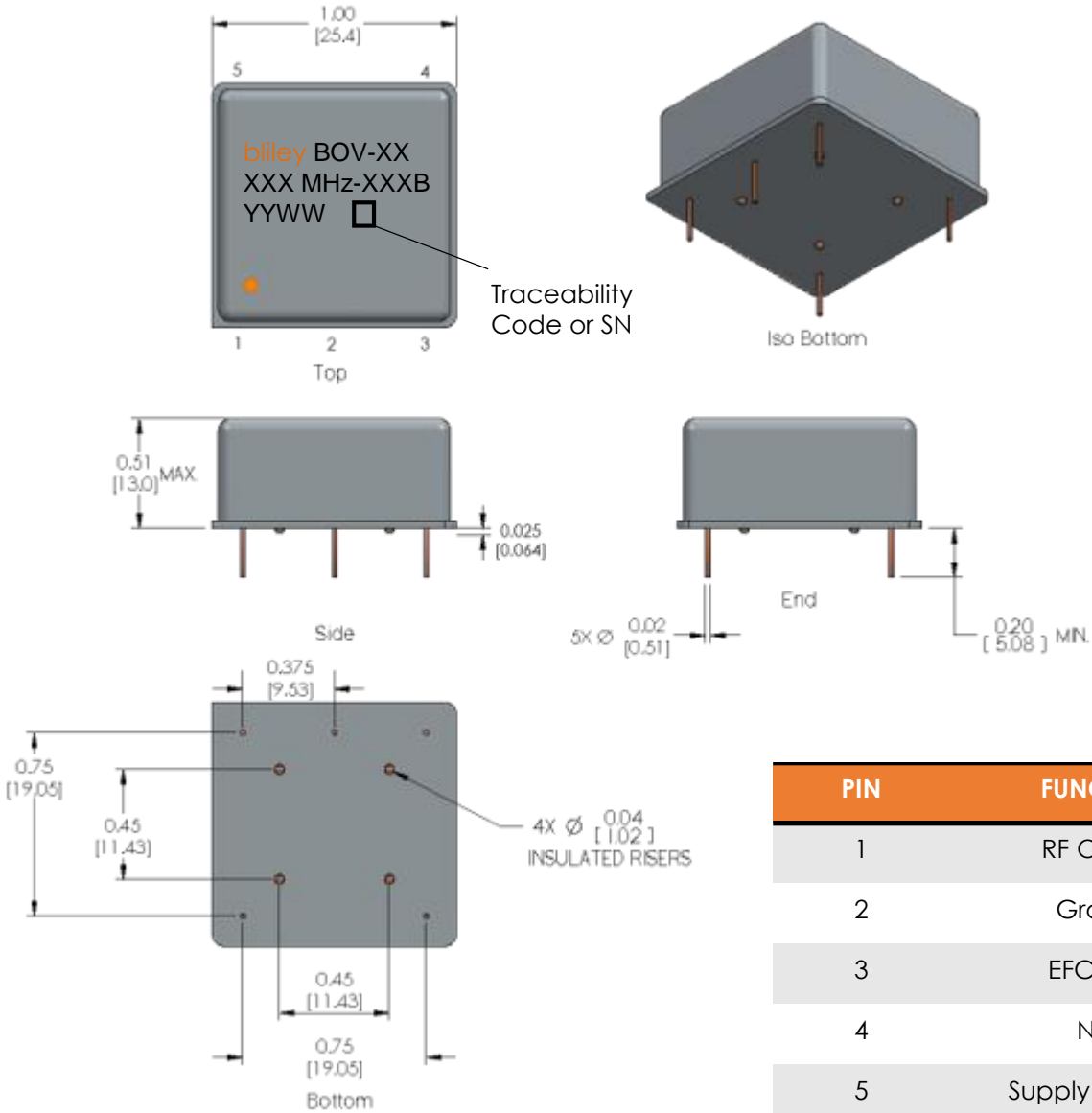
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## Environmental Compliance

Parameter	Conditions	Values			Unit
		MIN	TYP	MAX	
Operating Temperature	Option B	-20		+70	°C
	Option C	-40		+85	°C
Storage Temperature		-50		+100	°C
Seal	MIL-STD-202 Method 112 Test Condition D				
Mechanical Shock	MIL-STD-202 Method 213 Test Condition J				
Vibration	MIL-STD-202 Method 201				

# Physical Specifications



PIN	FUNCTION
1	RF Output
2	Ground
3	EFC/N.C.
4	N.C.
5	Supply Voltage

Tolerances (mm) .X = ± 0.5, .XX = ± 0.2 unless otherwise specified

Notes:  
 • None

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