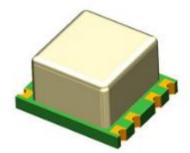


## Dynamic Engineers Inc.

Website: <u>www.DynamicEngineers.com</u> Email: <u>Inquiry@DynamicEngineers.com</u>

### **Features and Benefits**

Frequency range: 400MHz Supply voltage: 5.0V Steady current: 100mA Max Output waveform: Sinewave Frequency stability vs. operating temperature: ±1.0ppm Aging: ±0.5ppm per year Phase noise@100KHz: -145dBc/Hz Operating temperature: -40°C to +85°C Size: 25.4x22x12.8mm H7 L C &) &&6 9 !( \$\$A < n!6 !J 400MHz SMD Sinewave TCXO\_Temperature Compensated Crystal Oscillator



### **Typical Applications**

UHF Synthesizers SATCOM System Portable Microwave Applications

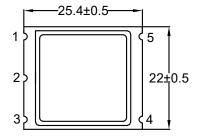
#### **Description**

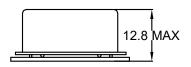
TCXO2522BE-400MHz-B-V offers wide temperature operation with outstanding frequency stability and low phase noise performance.

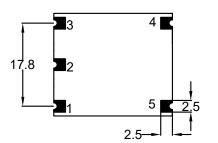
### **Mechanical Drawing & Pin Connections**

Drawing No: M8

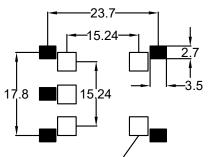
M8 &( \$\$) &!%

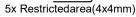






Solder PAD Layout





#1	Control Voltage
#2	GND
#3	Supply Voltage
#4	Output
#5	GND

Unit in mm 1mm = 0.0394 inches

Dynamic Engineers, Inc.

Rev. 1

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## **Specifications**

Oscillator			Value			Unit	Note
Specification	Sym	Condition	Min.	Тур.	Max.		
Frequency	Fnom			400		MHz	
RF Output							
Signal Waveform			Sinewave				
Level			1.0		2.0	Vp-р	
Sub-harmonics					-40	dBc	
Load				50		ohm	
Power Supply				1 1		T	
Supply Voltage	V <sub>cc</sub>	±5%		5.0		V	
Input Current					100	mA	
Frequency Adjustment Range							
Control Voltage			0.5	2.5	4.5	V	
Frequency Pulling Range			±5.0			ppm	
Linearity					±10	%	
Frequency Stability							
Total stability		including temp. stability, supply&load change, and 20years aging			±5.0	ppm	
Versus Operating Temperature Range		-40°C to +85°C			±1.0	ppm	
Tolerance		at +25°C			±1.0	ppm	
Versus supply voltage		±5% change			±0.1	ppm	
Versus Load		±10% change			±0.1	ppm	
Aging 1 <sup>st</sup> Year					±0.5	ppm	
Aging 20 Years					±2.5	ppm	
Phase noise		1KHz		-120		dBc/Hz	
		10KHz		-135		dBc/Hz	_
		100KHz		-145		dBc/Hz	4
		1MHz		-145		dBc/Hz	4
		10MHz		-145		dBc/Hz	
Environmental, Mechanical Conditions	1000						
Operating temperature range	-40°C to						
Storage temperature range	-45°C to	+90°C					

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