



# VFTX300

## TCXO with Voltage Control Option

### 3.2x2.5mm Surface Mount, Clipped Sine

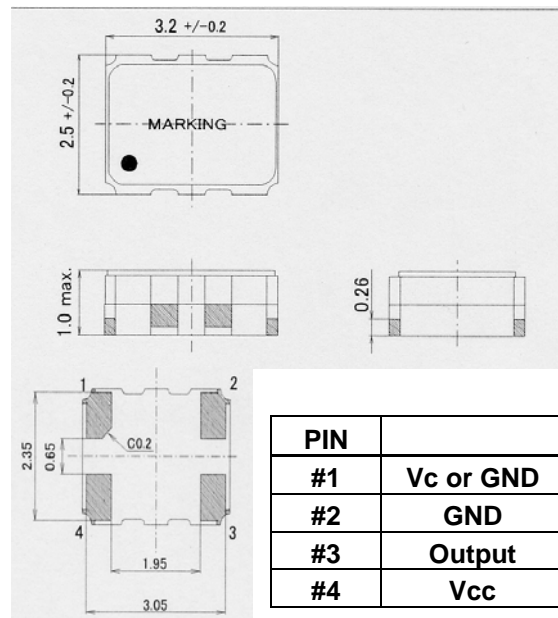
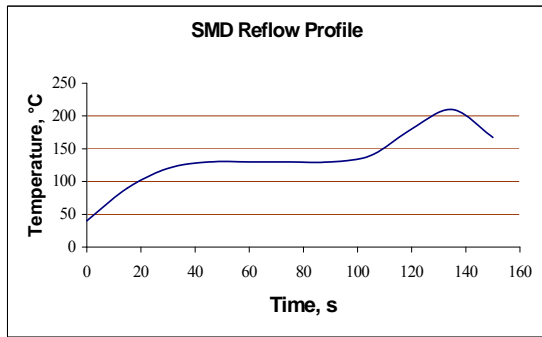
#### Features

- Frequency range of 10MHz to 40MHz
- Very Low Phase Noise
- Excellent Frequency Stability
- Clipped Sine Wave Output
- Low Aging, Vacuum sealed Crystal
- Available as a VCXO



#### Applications

- Optical Networking, SONET/SDH
- 10 Gbit Ethernet
- Frequency Translation



#### How to Order



Stability	
Code	Specification
L	±0.5ppm
K	±1.0ppm
J	±1.5ppm
H	±2.0ppm
G	±2.5ppm

Temperature Range	
Code	Specification
A	0°C to 50°C
C	-10°C to +60°C
D	-20°C to 70°C
F	-30°C to +85°C
G	-40°C to 85°C

Vcc	
Code	Specification
F	3.0V
G	2.5V

Pulling	
Code	Specification
T	TCXO
A	±5ppm
B	±8ppm
C	±10ppm
D	±12ppm
E	±15ppm
F	±18ppm
G	±20ppm

Freq. Vs Temp Availability					
Temp (°C)	L: 0.5ppm	K: 1.0ppm	J: 1.5ppm	H: 2.0ppm	G: 2.5ppm
0°C to +50°C	♦	♦	♦	♦	♦
-10°C to +60°C	♦	♦	♦	♦	♦
-20°C to +70°C	♦	♦	♦	♦	♦
-30°C to +85°C	o	♦	♦	♦	♦
-40°C to +85°C		♦	♦	♦	♦

o case by case  
♦ available



# VFTX300

## TCXO with Voltage Control Option

### 3.2x2.5mm SMD

### Clipped Sine Wave



#### Specifications

Parameter	Symb	Condition	Min	Typ	Max	Unit	Note
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#### Absolute Maximum Ratings

Input Break Down Voltage	Vcc		-0.5		7.0	V	
Storage temp.	Ts		-55		125	°C	
Contr. Voltage	Vc		-1		9	V	

#### Electrical

Frequency range	F		10		40	MHz	
Input Voltage	Vcc		2.375 2.8	2.5 3.0	2.625 3.3	V	
Input Current	Icc	50 Ohm Load			2.5	mA	
Frequency Stability	ΔF/F	vs. Temperature vs. Vcc aging	0.5		±5 ±0.2 ±1	ppm ppm/V ppm/year	Refer to selection table
Output	Clipped Sine, 0.8Vp-p minimum						
Load	10KΩ/10pF						
Start up time	Ts			2	10	ms	
SSB Phase Noise		@100 Hz @1 KHz @10 KHz		-115 -135 -150		dBc/Hz	Fo=13MHz
Input Impedance			10				MΩ
Control voltage	Vc		0.5 0.5		4.55 2.5	V	5Vcc 3Vcc

#### Environmental and Mechanical

Operating temp. range	-20°C to 70°C (-40°C to 85°C available) refer to selection table						
Mechanical Shock	Per MIL-STD-202, Method 213, Cond. E						
Thermal Shock	Per MIL-STD-883, Method 1011, Cond. A						
Vibration	Per MIL-STD-883, Method 2007, Cond. A						
Soldering Conditions	230°C for 90s Max						
Hermetic Seal	Leak rate less than 5x10 <sup>-8</sup> atm.cc/s of helium (crystal only)						

#### Electrical Connections

Pin Out	Pin #1- Voltage Control or GND Pin #3 – Output	Pin #2 - GND Pin #4 - Vcc
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