

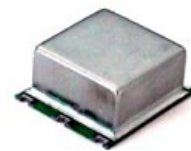


Features

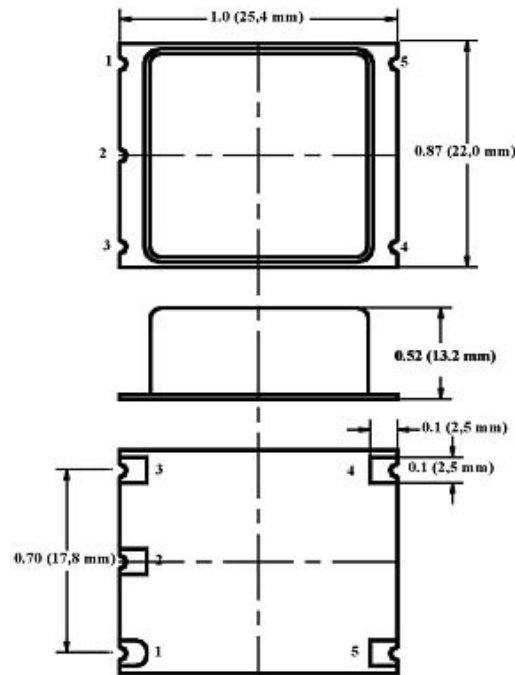
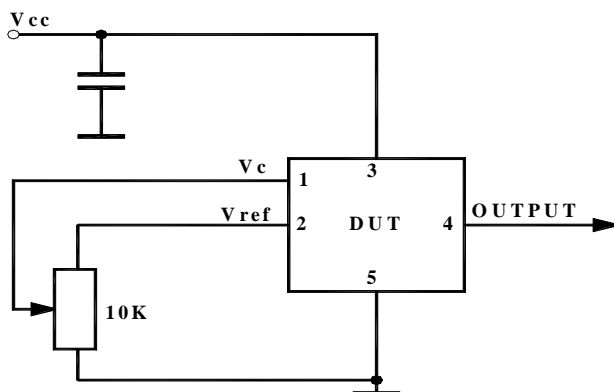
- Small, Low Profile SMD Package
- SC-cut crystal
- High Stability up to $\pm 5 \times 10^{-9}$
- Low Aging 5×10^{-10} /day, 5×10^{-8} /year
- Low Phase Noise -160 dBc/Hz, TYP, floor
- Sine Wave or HCMOS/TTL output

Applications

- Base Stations
- Fiber Channel
- GPS
- Test & Measurement



Frequency Range: 4.8MHz – 200MHz



Bottom View

To Order - Create a Part Number

VFTCS — [] [] [] [] [] — **FREQUENCY, MHz**

Code	Specification
A	0°C to 50°C
B	-10°C to 60°C
C	0°C to 70°C
D	-20°C to 70°C
E	-30°C to 70°C
F	-40°C to 85°C

Code	Specification
17	1×10^{-7}
58	5×10^{-8}
28	2×10^{-8}
18	1×10^{-8}
59	5×10^{-9}
YZ	$Y \times 10^{-Z}$

Code	Specification
L	1×10^{-9} /Day
S	5×10^{-10} /Day
P	2×10^{-10} /Day

Code	Specification
T	TTL
S	Sinewave

Code	Specification
5	5V \pm 5%
2	12V \pm 5%
3	3.3V \pm 5%

Not all combinations are available. See table below or Consult Factory.

Available Frequency Stabilities over Operating Temperature Ranges

Code	Temperature Range	1×10^{-7}	5×10^{-8}	2×10^{-8}	1×10^{-8}	5×10^{-9}
A	0°C to 50°C	*	*	*	*	*
B	-10°C to 60°C	*	*	*	*	*
C	0°C to 70°C	*	*	*	*	*
D	-20°C to 70°C	*	*	*	*	*
E	-30°C to 70°C	*	*	*	*	*
F	-40°C to 85°C	*	*	*	*	*



VFTCS Series OCXO

Specifications:

Parameter	Symb	Condition	Min	Typ	Max	Unit	Note
Absolute Maximum Ratings							
Input Break Down Voltage	V _{cc}		-0.5		7.0	V	
Storage temper.	T _s		-40		85	°C	
Control Voltage	V _c		-1		9	V	

Electrical

Frequency	F		4.8		200	MHz		
Frequency Stability	$\Delta F/F$	vs. Temp vs. Supply		± 10 1		ppb ppb		
Aging		Per Day Per Year		5×10^{-10} 1×10^{-7}			After 30 days	
Allan Variance		.1s to 10s		1×10^{-11}				
SSB Phase Noise		10 Hz 100 Hz 10 KHz		-125 -145 -165		dBc/Hz	At higher frequencies, deteriorates by 20LogN dB	
Retrace		After 30 minutes		± 1	± 20	ppb		
G-sensitivity		worst direction			± 1.0	ppb/G		
Input Voltage	V _{cc}		4.75	5.0	5.25	V	3.3V, 12V \pm 5% optional	
Power consumption	P	steady state, 25°C steady state, -30°C start-up @ -30°C		1.0 2.0 3.2	1.2 2.2 3.5	W		
Load		10KOhm//15pF (HCMOS/TTL), 50 Ohm (Sinewave)						
Warm-up time	t	to 0.1ppm accuracy		2	3	minutes		
Output Waveform		4.0V HCMOS/TTL compatible or Sinewave (>+7dBm)						-25dB Harmonics at sine
Control voltage	V _c		0		4.0	V	To 2.8V at V _{cc} =3.3V	
Pull range		from nominal F	± 0.5	± 1		ppm	At 10 MHz	
Deviation slope		Monotonic, posit		0.4		ppm/V		
Setability	V _{c0}	@25°C, F _{nom} .	1.0	2.0	3.0	V		

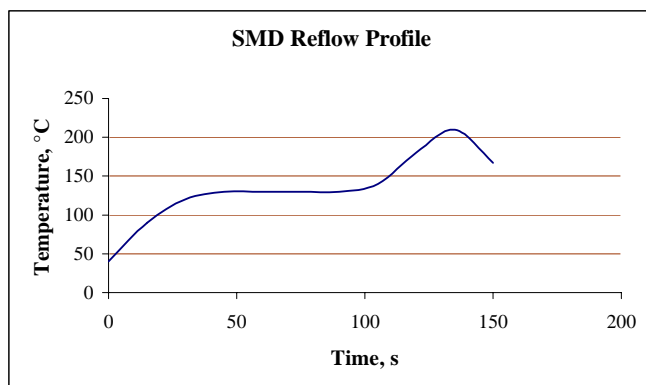
All parameters for 10 MHz

Environmental and Mechanical

Operating temp. range	-30°C to 70°C Standard, Other options – see chart below
Mechanical Shock	Per MIL-STD-202, 30G, 11ms
Vibration	Per MIL-STD-202, 5G to 2000 Hz
Soldering Conditions	230°C for 30s Max SMD profile

Electrical Connections

Pin Out	Pin #1- V _c ; Pin #2- V _{ref} ; Pin #3- V _{cc} ; Pin #4 - Output; Pin#5 - GND
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REVA 0506

