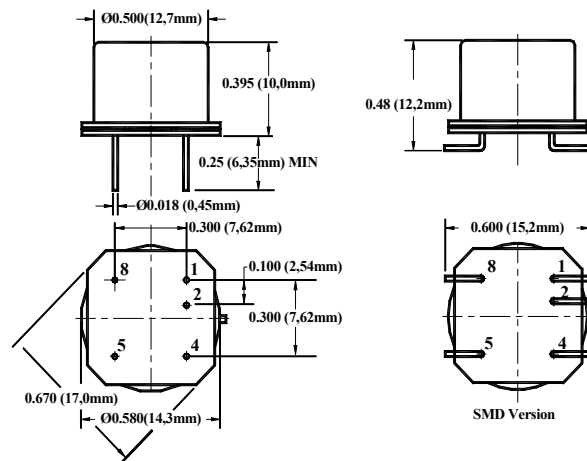


Product Data Sheet

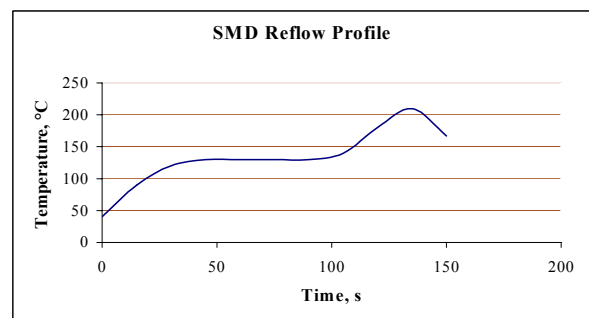
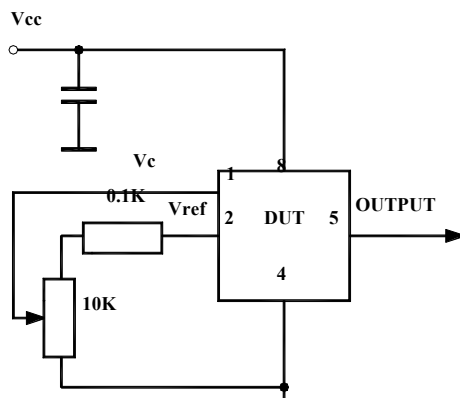
Features

- Smallest OCXO available ($< 1 \text{ cm}^3$, 2g weight)
- SC-cut crystal
- High Vacuum Sealed Enclosure
- Extremely Low Power Consumption ($< 100 \text{ mW}$)
- Very Fast Warm-up Time (30s)
- High Stability (up to $\pm 5 \times 10^{-9}$ over 0°C to 50°C)
- Low Aging (5×10^{-10} /day, 5×10^{-8} /year)
- Very Low Phase Noise (-160dBc/Hz TYP)
- HCMOS/TTL output
- “Gull-Wing” SMD Version Available
- 4.8 MHz to 50 MHz Frequencies Available
- “Half-size”, DIL-8 compatible pinout



Applications

- Telecommunications
- Data Communications
- Battery Powered Systems and Equipment
- GPS
- Instrumentation
- SARSAT Beacons



Specifications:

Parameter	Symb	Condition	Min	Typ	Max	Unit	Note
-----------	------	-----------	-----	-----	-----	------	------

Input Break Down Voltage	V _{cc}		-0.5		13.0	V	
Storage temper.	T _s		-40		85	°C	
Control Voltage	V _c		-1		9	V	

Frequency	F		4.8	10.000	50	MHz		All parameters for 10 MHz
Frequency stability	$\Delta F/F$	vs. Temp.		± 20		ppb	See chart below	
		vs. Supply		1	5	ppb/V		
Aging		per day per year		5E-10 1E-7			after 30 days	
Allan Variance		.1s to 10s		1E-11				
SSB Phase Noise		10 Hz 100 Hz 10 KHz		-120 -145 -160		dBc/Hz	Deteriorates by 20LogN at higher Frequencies	
Retrace		After 30 minutes			± 20	ppb		
G-sensitivity		worst direction			± 1.0	ppb/G		
Input Voltage	Vcc		4.75	5.0	5.25	V	3.3V	
Input Current	Icc	steady state, 25°C steady state, -30°C start-up current		25/35 70/85 150/150	35/50	mA	5V/3.3V supply	
Load	10KOhm//15pF							
Warm-up time	τ	to 0.1ppm accuracy		35		s	45s at 3.3V supply	
Output Waveform	3.3V HCMOS/TTL compatible							
Tristate Control	Logic “high” or floating – active; logic “low” – infinite impedance							
Control voltage	Vc		0		4.0	V	2.8 V with 3.3V supply	
Pull range		from nominal F	± 0.5	± 1		ppm		
Deviation slope		Monotonic, posit		0.4		ppm/V		
Setability	Vc0	@25°C, Fnom.	1.0	2.0	3.0	V	(1.4 \pm 8)V with 3.3V	

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	Leads Temperature 260°C, for 10s, Max, 230°C for 30s Max SMD profile
Hermetic Seal	Leak rate less than 1×10^{-8} atm.ccm/s of helium

Pin Out	Pin 1- Vc ; Pin 2-Vref; Pin 4- Case, GND; Pin5 – Output; Pin 8- Vcc
----------------	---

VFT8H FREQUENCY, MHz

S for SMD

Temperature Range Temperature Stability Aging Supply Voltage

“V” for VCXO

Code	Specification
5	$5V \pm 5\%$
3	$3.3V \pm 5\%$

Not all combinations are available. Consult Factory.