



### Features and Benefits

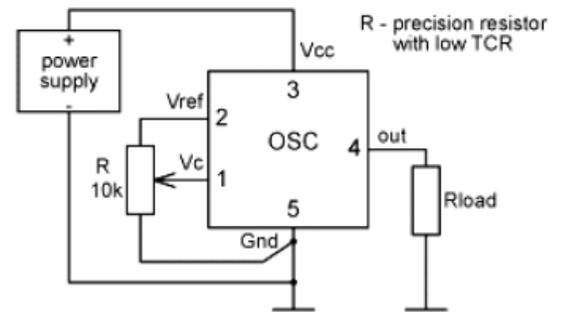
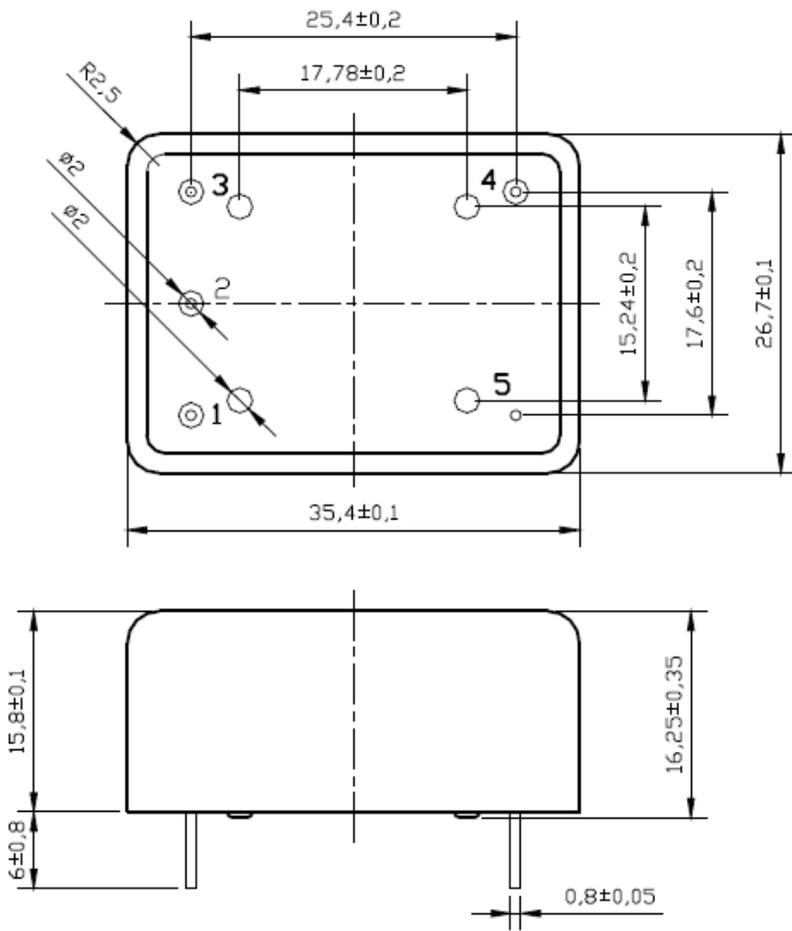
- Sine wave output
- 12V supply voltage
- High frequency stability (up to +/-0.5ppb over 0°C to +80°C)
- Low phase noise

### Typical Applications

- UHF Synthesizers
- SATCOM System
- Portable Microwave Applications
- Instrument Calibration Reference Source

### Mechanical Drawing & Pin Connections

Drawing No: MD150080-1





## Specifications

OCXO Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F <sub>0</sub>			10		MHz	
<b>RF Output</b>							
Sine wave	Level	L	+6	+8		dBm	
	Load	RL	45	50	55	Ohm	
	Harmonics Level				-25	dBc	
Sub-harmonics Level			None				
<b>Power Supply</b>							
Voltage	V <sub>cc</sub>		11.4	12.0	12.6	V	
Power Consumption		Steady-state@+25°C			200	mA	
		Warm-up	400		550	mA	
Warm-up Time		ToΔf/f=1e-8, at 25°C Ref. to 1h of operation			5	Min.	
<b>Frequency Control</b>							
Input Resistance				11		Kohm	
Control Voltage	V <sub>c</sub>		0		4.2	V	Tuning slop-positive
Preset Control Voltage	V <sub>co</sub>	Disconnect V <sub>c</sub> PIN	1.6	2.1	2.6	V	
Tuning Range	(f <sub>L</sub> -f)/f	V <sub>c</sub> =0V			-0.35	ppm	
	(f-f)/f	V <sub>c</sub> =V <sub>co</sub>		0		ppm	
	(f <sub>H</sub> -f)/f	V <sub>c</sub> =V <sub>ref</sub>	+0.35			ppm	
Reference Voltage	V <sub>ref</sub>		4.1	4.2	4.3	V	
Output Resistance of V <sub>ref</sub>				91		Ohm	
<b>Frequency Stability</b>							
Vs. Operating Temperature Range		+25°C to +55°C ref +40°C			+/-0.1	ppb	
		0°C to +80°C ref +40°C			+/-0.5	ppb	
Frequency Tolerance		@+25°C			+/-0.1	ppm	
Vs. Supply Voltage Change		Ref. V <sub>cc</sub> typ.			+/-0.1	ppb	
Allan Variance		1.0s		3		e-12	
Aging	Per Day	After 30 days of operation			+/-0.2	ppb	
	Per Year		+/-20	ppb			
<b>Phase Noise</b>							
Phase Noise		@1Hz			-95	dBc/Hz	
		@10Hz			-130		
		@100Hz			-150		
		@1KHz			-160		
		@10KHz			-165		
		@100KHz			-167		
<b>Environmental</b>							
Operating Temperature Range		0°C to +80°C					
Storage Temperature Range		-60°C to +90°C					
Humidity		Hermetically sealed					
Mechanical Shock		Per MIL-STD-202, 30G half sine pulse, 11ms					
Vibration		Per MIL-STD-202, 5G to 500Hz					
Soldering Conditions		Hand solder only – not reflow compatible260°C 10s(on pins)					
Washing Conditions		Washing with water or alcohol based detergent allowed only with final enough drying stage					