

**Features and Benefits**

Better than  $\pm 100$  ppb available over  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$   
 +12V supply ; 1.5 Watts steady-state power  
 Frequency tolerance@ $+25^{\circ}\text{C}$  as good as  $\pm 250$  ppb  
 Better than  $-120$  dBc/Hz @ 100 Hz offset

**Typical Applications**

Weather Radar  
 Test Instruments  
 Internal OCXO for DRO devices

**Picture**

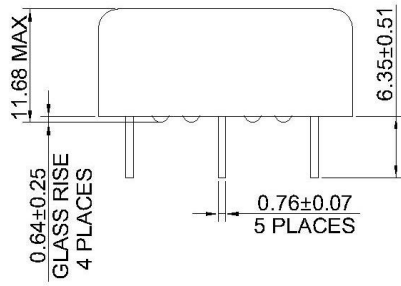
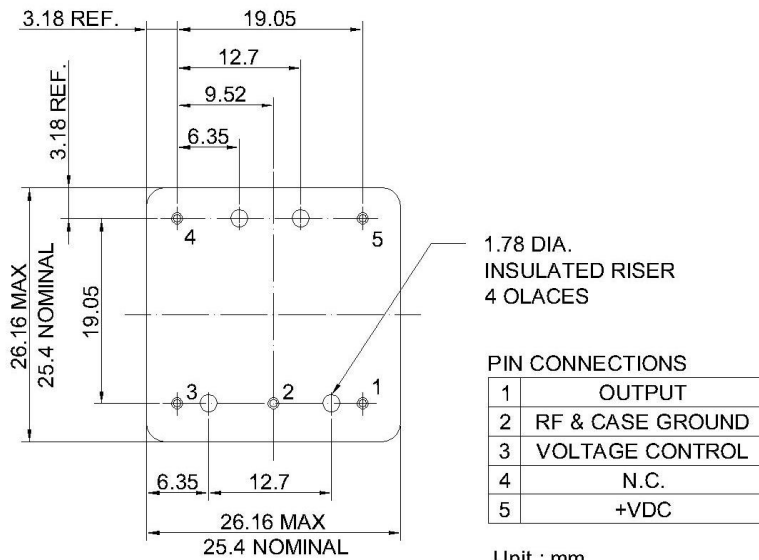


**Description**

The OCXO2525D offers a VHF 100 MHz OCXO design platform optimized @  $+12\text{V}$  operation for customer selected levels of phase noise performance as a function of application requirements.

**Mechanical Drawing & Pin Connections**

**Drawing No: MD150013-1**



## Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency Range	$F_{nom}$			100.000000		MHz	
<b>RF Output</b>							
Wave form				Sine wave			
Level	L		+10			dBm	
Load	$R_L$		45	50	55	Ohm	
Harmonics Level					-30	dBc	
<b>Frequency control</b>							
Input Resistance	$R_{in}$			100		Kohm	
Voltage Range	$V_c$		0		10	V	
Control Voltage Center	$V_{co}$	Vc pin		5.0		V	
Frequency Turning Range	$(f_L-f)/f$	$V_C = 0V$			-1.0	ppm	
	$(f-f)/f$	$V_C = 5V$		0		ppm	
	$(f_H-f)/f$	$V_C = 10V$	1.0			ppm	
<b>Power Supply</b>							
Voltage	$V_{cc}$			12.0		V	
Power Consumption		Warm-up			4.8	W	$V_{cc}=12V$
		Steady-state		1.5		W	$V_{cc}=12V@25^\circ C$
Warm-up Time:	$T_{up}$	to $\Delta f/f = 1e^{-7}$ at $+25^\circ C$ ref. to 60 min.			5	min	
<b>Frequency Stability</b>							
Tolerance At 25°C		@25°C, $V_C = V_{Co}$	-0.250		+0.250	ppm	
Vs. Temperature		Ref. 25°C			+/-100	ppb	
Vs. Supply Voltage		Ref Vcc typ.			+/-5	ppb	
Aging	per day	after 30days of operation			+/-5.0	ppb	
	first year			+/-500		ppb	
Phase Noise					-90	dBc/Hz	
					-120		
					-152		
					-165		
					-170		
<b>Environmental Conditions</b>							
Operating temperature range		-40°C to +70°C					
Storage temperature range		-55°C to 95°C					
Humidity		Hermetically sealed					
Mechanical Shock		Per MIL-STD-202G ; Method 213 Condition C					
Random Vibration		Per MIL-STD-810G ; Method 514 Procedure I					
Sinusoidal Vibration		Per MIL-STD-202G ; Method 204 Condition A					
MTBF		150000 Hours ; Per MIL-HDBK-217					