



### Features and Benefits

Frequency range: 25MHz  
Supply voltage: 3.3V  
Current: 2.2mA  
Output waveform: CMOS  
Frequency stability vs. temperature:  $\pm 0.5$ PPM  
Aging:  $\pm 1$ PPM first year  
Phase noise: -157dBc/Hz@100KHz:  
Operating temperature: -40°C to +85°C  
Size: 5x3.2x1.7 mm

### Typical Applications

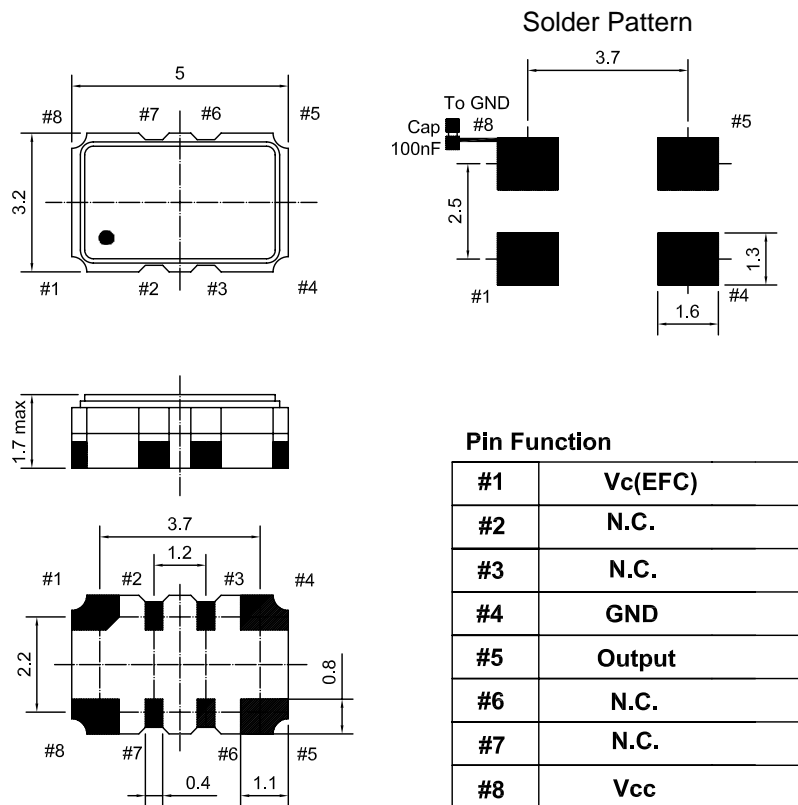
Portable Wireless Communications  
Mobile Test Equipment  
Radio  
SATCOM System

### Description

TCXO5300BT-25MHz-B-V is the low phase noise and small size TCXO. It can be widely used in the portable communication devise.

### Mechanical Drawing & Pin Connections

Drawing No: MD150017-10



Unit in mm  
1mm = 0.0394 inches



**Specifications**

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	f <sub>0</sub>			25		MHz	
<b>RF Output</b>							
Output Waveform			CMOS				
Output Level High			0.9*V <sub>cc</sub>			V	
Output Level Low					0.1*V <sub>cc</sub>	V	
Output Load					15	pF	
<b>Power Supply</b>							
Voltage	V <sub>cc</sub>	±5%		3.3		V	
Current				2.2		mA	
<b>Frequency Control</b>							
Control Voltage Range			0.5	1.5	2.5	V	
Tuning Range		Positive slope	±5			ppm	
EFC Input Impedance			100			Kohm	
<b>Frequency Stability</b>							
Frequency tolerance ex. Factory		@+25°C	0		1.0	ppm	
Vs. Temperature		Reference to (FMAX+FMIN)/2			±0.5	ppm	
Vs. Supply Voltage Changes		±5% Referenced to frequency at nominal supply			±0.1	ppm	
Vs. Load Changes		±5% Referenced to frequency at nominal supply			±0.1	ppm	
Vs. Aging@+40°C		1 <sup>st</sup> year			±1.0	ppm	
G-sensitivity		Per axis			2.0	ppb/g	
Phase Noise		10 Hz		-75		dBc/Hz	
		100 Hz		-110			
		1 KHz		-135			
		10 KHz		-154			
		100 KHz		-157			
<b>Environmental Conditions</b>							
Operating temperature range		-40°C to +85°C					
Storage temperature range		-55°C to +105 °C					
Reflow Profiles as per IPC/JEDEC J-STD-020C		≤260°C over10 sec. Max.					

Note: Unless otherwise specified conditions are @+25 °C