



# SMD Temperature Compensated Crystal Oscillator

## TCXO 7052

### Features

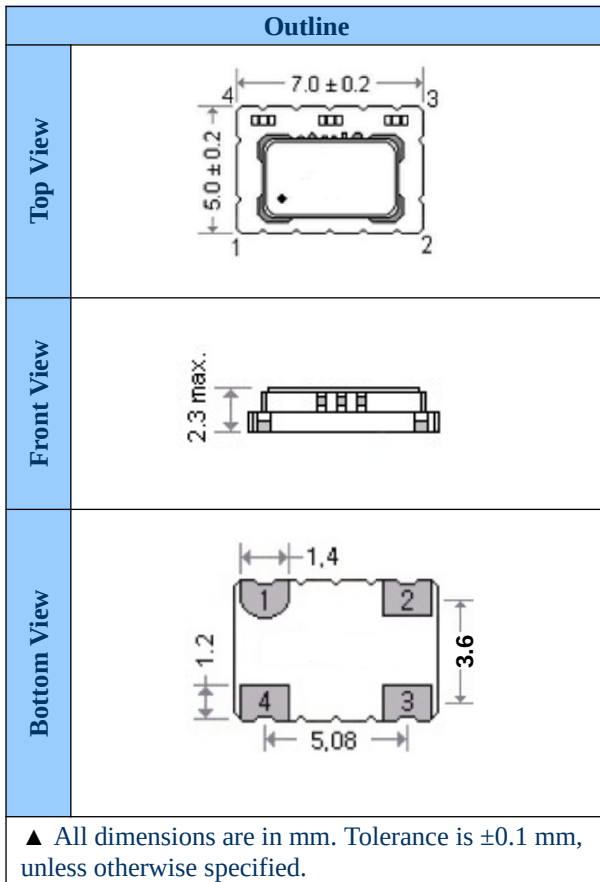
- Ceramic SMD Package
- RoHS compliant

Specifications		Option Codes	
Clipped Sine Wave	Frequency Range:	CS	
			6.4 MHz ~ 52 MHz
	Output Level:		0.8 Volts [Peak-to-Peak] (min.)
	Load:		10 K $\Omega$ // 10 pF $\pm$ 10%
	Current Consumption:		
	1.5 mA (max.) for 10 MHz ~ 14.9 MHz		
	2.0 mA (max.) for 15 MHz ~ 25.9 MHz		
	3 mA (max.) for 26 MHz ~ 52 MHz		
HCMOS	Frequency Range:	H	
			32.768 KHz and 1 MHz ~ 52 MHz
	V <sub>High</sub> :		0.9 V <sub>dd</sub> (min.)
	V <sub>Low</sub> :		0.1 V <sub>dd</sub> (max.)
	Duty Cycle:		45% to 55%
	Rise/ Fall Time:		10 ns (max.) [20% to 80% of the waveform]
	Load:		15 pF $\pm$ 10%
	Current Consumption:		
	10 mA (max.) for +2.5 V		
	15 mA (max.) for +3.3 V		
	27 mA (max.) for +5.0 V		
Supply Voltage, V <sub>dd</sub> :			
	+2.5 V $\pm$ 5%	2	
	+3.3 V $\pm$ 5%	3	
	+5 V $\pm$ 5%	5	
Supply Voltage Stability:	$\pm$ 0.3 ppm (max.)		
Load Stability:	$\pm$ 0.3 ppm (max.)		
Frequency Tolerance @ 25°C:	$\pm$ 2 ppm (max.)		
Start-up Time:	10 ms (max.)		
Operating Temperature Range and Temperature Stability:	Select from Table 1		
Frequency Adjustment Option:			
	External Control Voltage (1.5 V $\pm$ 1 V)	V	
	None (Fixed Frequency)	N	
Control Voltage Range:	1.5 V $\pm$ 1.0 V		
Frequency Pulling Range:	$\pm$ 5 ppm (min.)		
Frequency Tuning Slope:	Positive		
Aging @ +25°C:	$\pm$ 1 ppm (max.) per year		
Storage Temperature Range:	-55°C to +125°C		



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## Mechanical Specifications



**Table 1**

OTR Codes	Stability Codes				
	Temperature Stability	X $\pm 0.5$ ppm	Y $\pm 1$ ppm	P $\pm 2$ ppm	Q $\pm 2.5$ ppm
A	0°C to +50°C				
C	-20°C to +70°C				
H	-30°C to +85°C				
I	-40°C to +85°C				

Denotes Available     Denotes not Available

**Table 2**  
Typical SSB Phase Noise @ 10 MHz

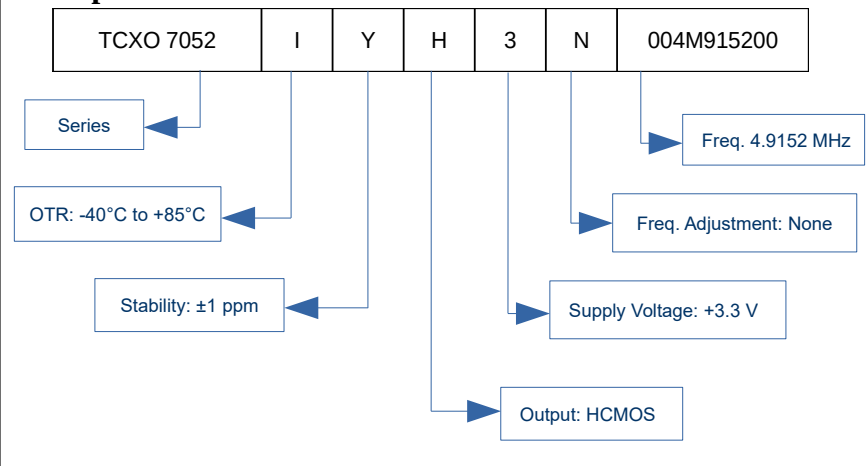
	Clipped Sine Wave	HCMOS
10 Hz offset	-80 dBc/Hz	-95 dBc/Hz
100 Hz offset	-115 dBc/Hz	-120 dBc/Hz
1 KHz offset	-135 dBc/Hz	-135 dBc/Hz
10 KHz offset	-145 dBc/Hz	-145 dBc/Hz
100 KHz offset	-148 dBc/Hz	-150 dBc/Hz

### Pad Configuration:

Pad	Option N	Option V
1	No Connection	Control Voltage
2	Ground	Ground
3	Output	Output
4	Supply Voltage	Supply Voltage

### Ordering Information

#### Example



Specifications subject to change without notice

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Note: Not all combination of options are available. Other specifications may be available upon request.

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