



SMD Temperature Compensated Crystal Oscillators

FEATURE

Excellent phase noise performance

Frequency slope and perturbation specifications can be customized to the application requirement

Standard temperature stability choices are $\pm 0.5\text{ppm}$, $\pm 1\text{ppm}$, $\pm 1.5\text{ppm}$ and $\pm 2.5\text{ppm}$ over wide temperature ranges

APPLICATION

GPS

Smartphone

Communications

Consumer

2.5*2.0*0.8mm



ELECTRICAL SPECIFICATION

Parameter	2. 5V~3. 3V				Unit	
	MIN		MAX			
Supply Voltage (VDD) 3. 3V*5%	3. 135		4. 465		V	
Frequency Range	10		40		MHz	
Standard Frequency	10	12. 8	13	19. 2	20 26 38. 88 40	MHz
Frequency Stability	±1				ppm	
Supply Current	2		6		mA	
Control Voltage: Nominal 1. 5v	0. 5		2. 5		V	
Frequency tuning	±9		±15		ppm	
Output Level (CMOS)						
Output High (Logic “1”)			2. 97		Vs	
Output Low (Logic “0”)	0. 33					
Output Levels (VoH)			> 90%		Vs	
Output Levels (VoL)	< 10%					
Duty Cycle	43		57		%	
Phase Noise @ 13. 0MHz						
10Hz	-95				dBc/Hz	
100Hz	-115					
1KHz	-135					
10KHz	-140					
Storage Temp. Range	-40		85		° C	
Storage Temp. Range	-55	125	-55	125	° C	

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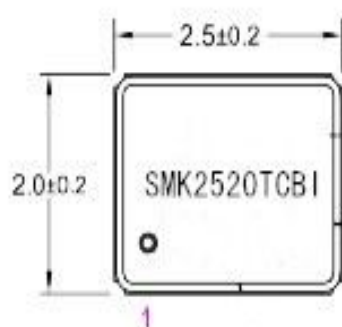
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COMPANY ADDRESS: 419, HARBOME ROAD , EDGBASTON, BIRMING. B15 3LB

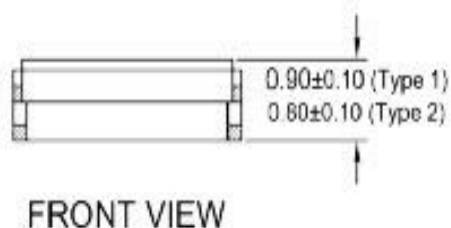


Shock	Half sine-wave acceleration of 3000g peak amplitude. Duration: 0.3ms, Velocity: 12.3ft/s [MIL-STD-202 M213] (Note 4)
Moisture resistance	1000 hours at 85° C, 85% relative humidity. Biased. [MIL-STD-202 M106g]
Thermal cycling	1000temperature cycles, where each cycle consists of a 25 minutes soak time at -40° C followed by a 25 minute soak time at 85° C, with a 60 second maximum transition time between temperatures. Air to air transition.
Vibration	10g peak acceleration for 4 minutes per sweep. 4 sweeps in each of the 3 orientations. Swept from 20-2000Hz [JESD22-B103-B] (Note 4)

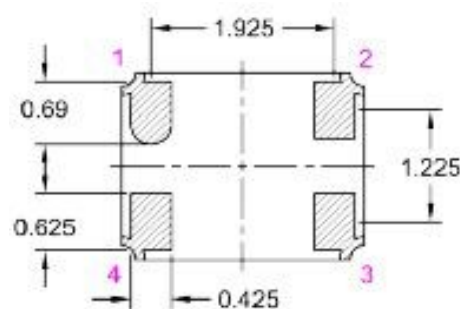
MODEL OUTLINE



TOP VIEW



FRONT VIEW



BOTTOM VIEW

PIN	
1	GND / NC
2	GND
3	OUTPUT
4	Vcc