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TCXO2520S-26MHz-A-V
High Stability TCXO

Features and Benefits

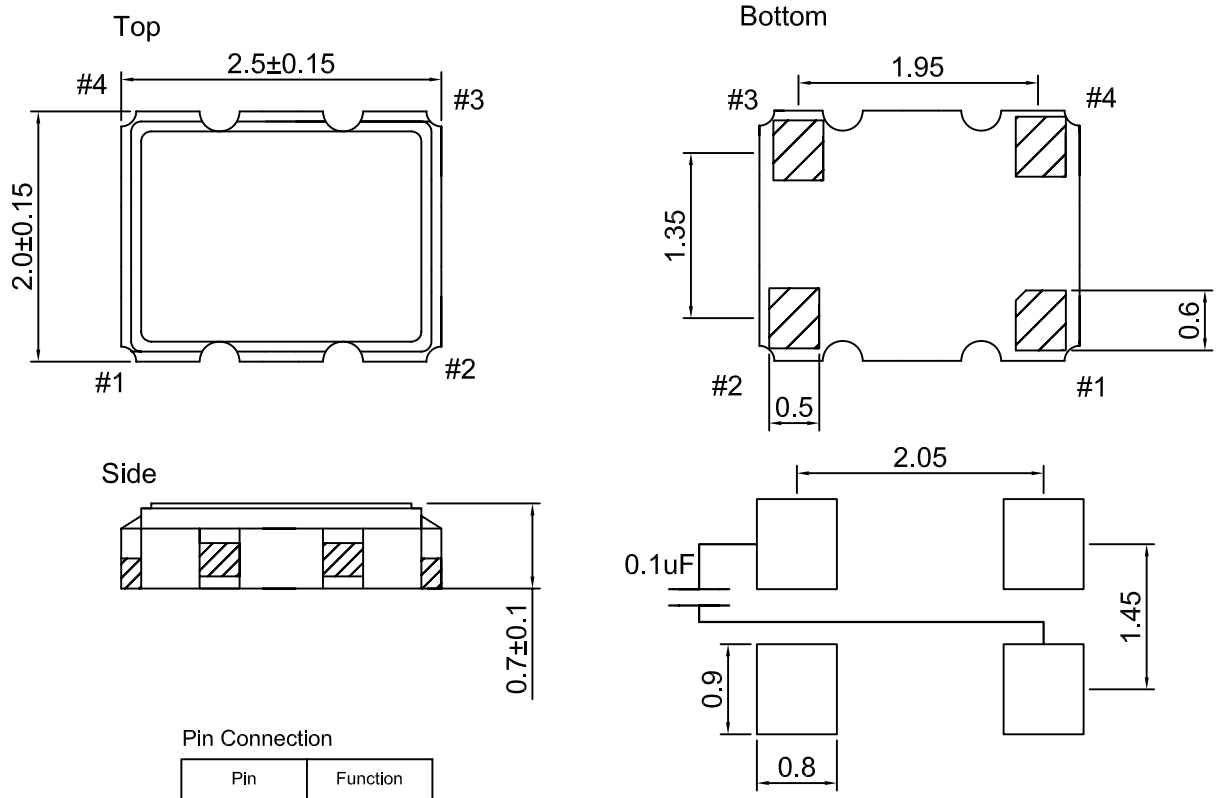
Better than ±0.5ppm from -40°C to +85°C
3.0V supply; 1.5mA maximum
Less than -135dBc/Hz @ 1KHz offset

Typical Applications

Mobile Radio
Communication Equipment

Mechanical Drawing & Pin Connections

Drawing No:MD160110-1



Recommened soldering pattern

Pin Connection

Pin	Function
#1	VCON
#2	GND
#3	Output
#4	Vdd

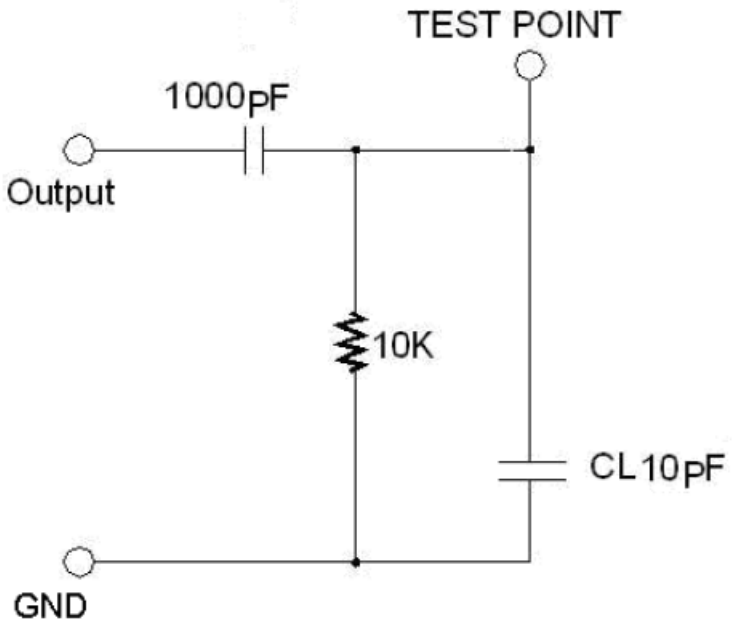
Unit : mm
1mm=0.0394inch

Specifications

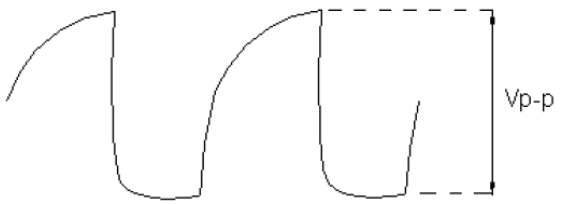
Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	F_0			26.00		MHz	
RF Output							
Output Wave Form		DC Coupled clipped sine wave		Clipped Sine Wave			
Voltage Level			0.8			Vp-p	
Load				10 10		Kohm pF	
Start Up Time					2.0	ms	
Power Supply							
Voltage	V_{cc}		2.85	3.00	3.15	V	
Current		At maximum supply voltage			1.5	mA	
Control Voltage							
Control Voltage Range			0	1.5	3.0	V	
Pulling Range		Referenced to VCON at 1.5V	±5			ppm	
Vcon Input Impedance		Measured between VCON and GND pin	500			kOhm	
Linearity					10	%	
Frequency Stability							
Nominal Frequency Tolerance		Frequency @ +25°C	-2.0		+2.0	ppm	1 hour after 2 times reflow
Over Temperature		-40°C to +85°C	-0.5		+0.5	ppm	Referenced to the midpoint between minimum and maximum frequency value
Supply Voltage Change		Supply voltage varied ±5% at 25°C	-0.2		+0.2	ppm	
Load Sensitivity		±10% load change	-0.2		+0.2	ppm	
Aging		1st year at 25°C	-1.0		+1.0	ppm	
Phase Noise							
Phase noise		100 Hz offset		-115		dBc/Hz	
		1 kHz offset		-135			
		10 kHz offset		-150			
		100 kHz offset		-152			

Environmental Conditions		
Parameter	**Test Conditions**	**Reference Std.**
Operating temperature range		-40°C to +85°C
Storage temperature range		-40°C to +85°C
Vibration Test	10-2000Hz, 1.52mm, 20G, each axis for 4 hours	MIL-STD-883 2007 Condition A JESD22-B103 Condition 1
Thermal Shock	-55°C, 125°C; soak time is 10 mins, with total 200 cycles	MIL-STD-883-1010 Condition B JESD22-A104 Condition B
Mechanical Shock	1500G, half-sine, 0.5ms, each axis for 3 times	MIL-STD-883-2002 Condition B JESD22-B104 Condition B

Test Circuit

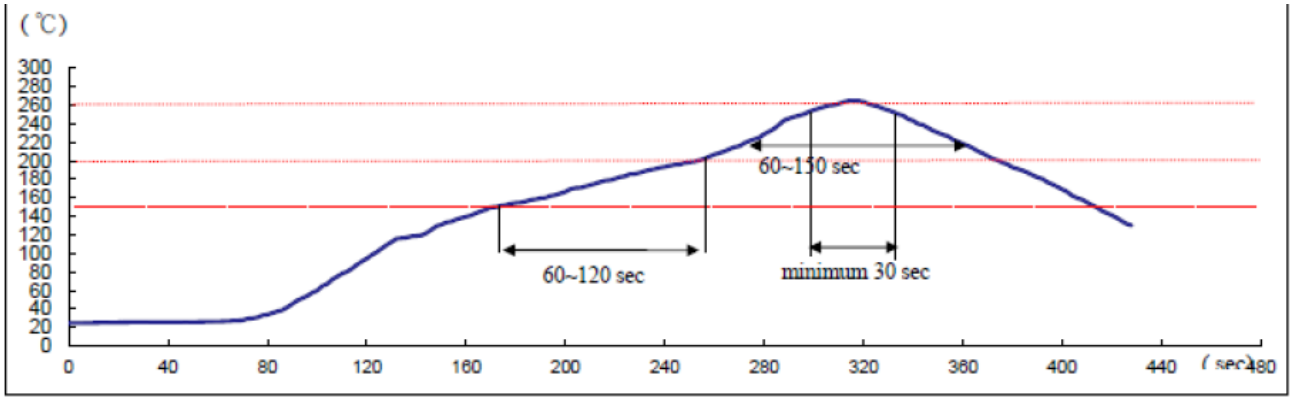


Output Waveform



Recommended IR Reflow Profile

IR reflow profile of ceramic SMD products for Pb free process



Reference Standard: JEDEC-STD020

Test Conditions: Pre-heating: 150°C to 200°C, 60~120secs

Heating: 217°C, 60~150secs

Peak temperature at least: 260°C, the time above 255°C, minimum 30 sec