

Travelling Merchant: _____

DATASHEET

Standard: **T22-S513-19.20MHz-B**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.08.27			

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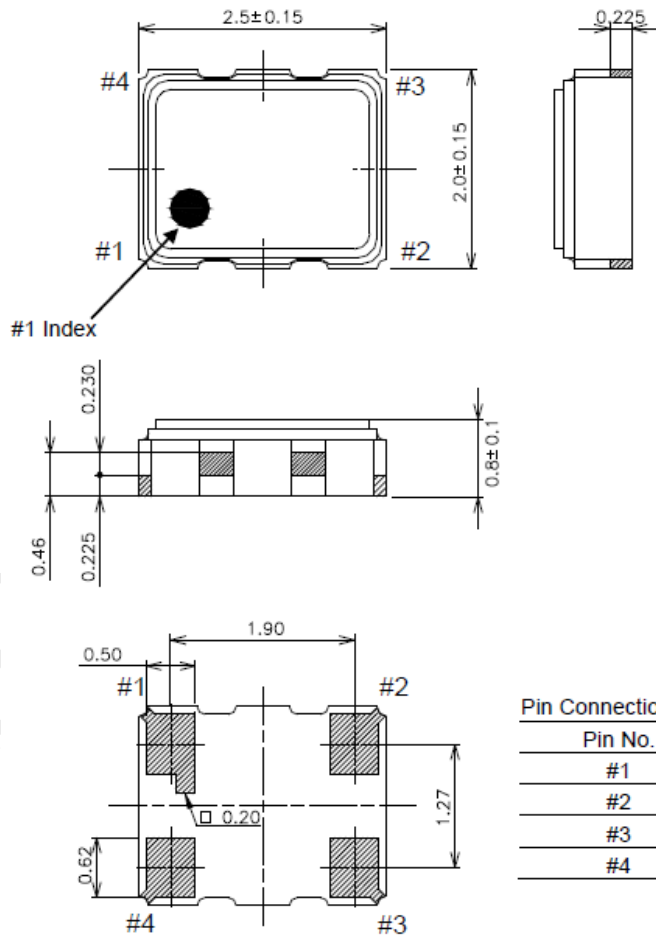
1、Electrical Parameters

MODEL: T22-S513-19.20MHZ-B						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	19.20			MHz	
	Output Waveform	Clipped Sine Wave				
	Vp-p	0.8			V	
	Duty Cycle	40		60	%	GND level (DC-cut)
	Load	10KΩ//10pF				
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.5		+0.5	$\times 10^{-6}$	T_A varied from -40°C to 85°C , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$, $V_{\text{cc}}=3.3\text{V}$, $V_c=0.9\text{V}$, $O_{\text{load}}=10\text{K}\Omega//10\text{pF}$, temperature variable speed less than 2°C per minute.
	Nominal Frequency Tolerance	-1.5		+1.5	$\times 10^{-6}$	After 2 times reflow, Ref. to nominal Frequency ($T_A=25^{\circ}\text{C}$), leave after Reflow in 2h or more at room ambient
	Frequency Tolerance vs. Supply Voltage	-0.2		+0.2	$\times 10^{-6}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$, V_{cc} varied from 3.135V to 3.465V, $V_c=0.9\text{V}$ and $O_{\text{Load}}=10\text{K}\Omega//10\text{pF}$.
	Frequency Tolerance vs. Load	-0.2		+0.2	$\times 10^{-6}$	10% Load change measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{\text{cc}}=3.3\text{V}$, $V_c=0.9\text{V}$ and $O_{\text{Load}}=10\text{K}\Omega//10\text{pF}$.
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	$T_A=25^{\circ}\text{C}$, $V_c=0.9\text{V}$ and after 1h of operation.
Phase Noise	Phase Noise			-112	dBc/Hz	100Hz
				-135		1KHz
				-143		10KHz
				-150		100KHz
Power Supply	Operating Current			1.5	mA	@ 25°C , $V_{\text{cc}}=3.3\text{V}$, $V_c=0.9\text{V}$, $O_{\text{Load}}=10\text{K}\Omega//10\text{pF}$.
	Supply Voltage	3.135	3.3	3.465	V	
Voltage Control	Frequency tuning range			-7	$\times 10^{-6}$	$V_c=0.3\text{V}$. measurement referenced to $V_c=0.9\text{V}$.
		-1.5		+1.5	$\times 10^{-6}$	$V_c=0.9\text{V}$. measurement referenced to Exactly 19.20MHz.
		+7			$\times 10^{-6}$	$V_c=1.5\text{V}$. measurement referenced to $V_c=0.9\text{V}$.
	Slope	Positive				
	Input Impedance	100			KΩ	



Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage Temperature	-40		+85	°C	
	ESD Level	Human Body Model,class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; JEDEC JESD22-A115C.				
	Moisture Sensitivity Level	Level 2				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz~2000Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X , Y , Z).IEC 68-2-06 Test Fc.				
Shock	100g; 6ms; half sine wave (3 times for each 3 directions X , Y , Z),IEC 68-2-27 Test Ea/Severity 50A.					

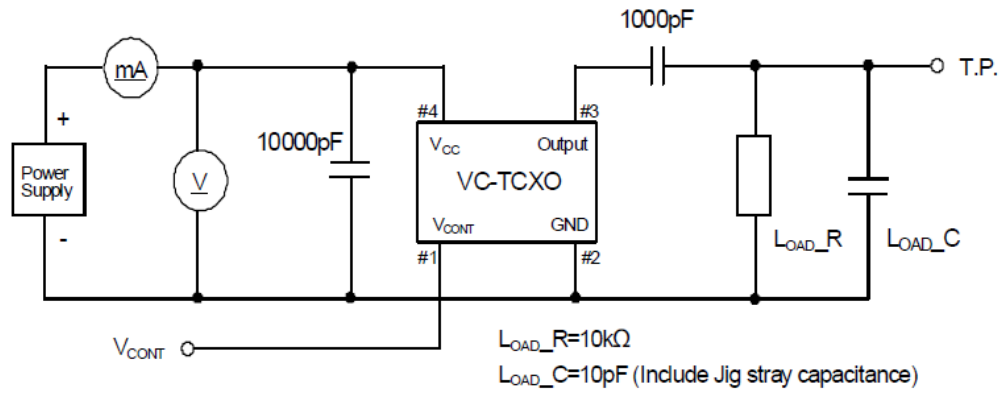
2、Mechanical Structure(mm)



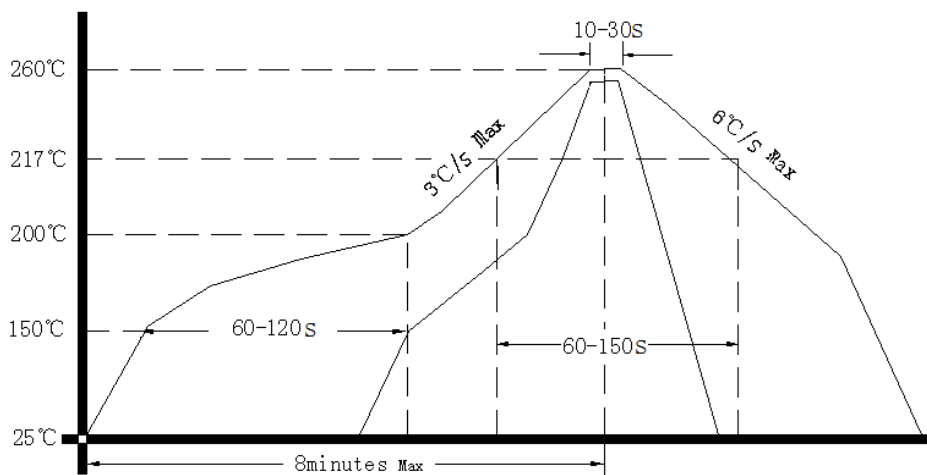
Note1: Tolerance ± 0.2 mm without mark



3、 Test Circuit



4、 Reflow Soldering Curve (RoHS)



5、 Package: Tape & Reel (mm)

