

Travelling Merchant: _____

DATASHEET

Standard: **T22-Y513-19.20MHZ**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.11.12			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2024.11.12



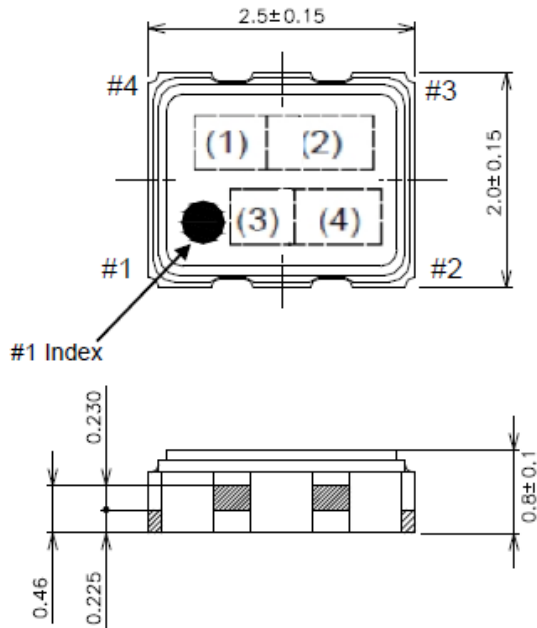
1、Electrical Parameters

MODEL: T22-Y513-19.20MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	19.20			MHz	
	Output Waveform	Clipped Sine Wave				
	Vp-p	0.8			V	
	Start up Time			2	ms	@90% of final Vout level
	Load	10KΩ//10pF				
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.28		+0.28	$\times 10^{-6}$	T _A varied from -40°C to 85°C, Ref. to Frequency $f_{ref}=(f_{max}+f_{min})/2$.
	Nominal Frequency Tolerance	-1.5		+1.5	$\times 10^{-6}$	After 2 times reflow, Ref.to nominal Frequency, 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°C, V _{cc} varied from 3.13V to 3.47V, V _c =1.65V and O _{Load} =10KΩ//10pF.
	Frequency Tolerance vs. Load	-0.2		+0.2	$\times 10^{-6}$	10%Load change measurement referenced to frequency observed with T _A =25°C, V _{cc} =3.3V, V _c =1.65V and O _{Load} =10KΩ//10pF .
	Aging Tolerance 1 Years	-1		+1	$\times 10^{-6}$	T _A =25°C, V _{cc} =3.3V, and after 1h of operation.
Phase Noise	Phase Noise @25°C			-110	dBc/Hz	100Hz
				-130		1KHz
				-140		10KHz
				-145		100KHz
Power Supply	Operating Current			1.5	mA	@25°C
	Supply Voltage	3.13	3.3	3.47	V	
Voltage Control	Frequency tuning range			-25	$\times 10^{-6}$	V _c = 0.65V. measurement referenced to V _c =1.65V.
		-1.5		+1.5	$\times 10^{-6}$	V _c =1.65V. measurement referenced to Exactly 19.20MHz.
		+25			$\times 10^{-6}$	V _c =2.65V. measurement referenced to V _c =1.65V.
	Slope	Positive				
	Input Impedance	100			KΩ	



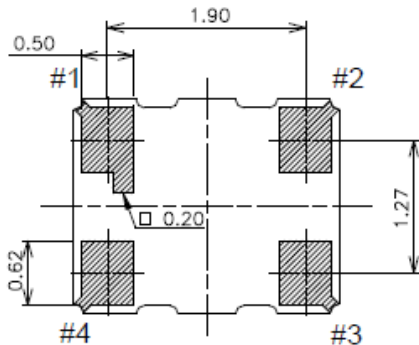
Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage Temperature	-40		+85	°C	
	ESD Level	Human Body Model,class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; JEDEC JESD22-A115C.				
	Moisture Sensitivity Level	Level 2				
	Vibration	Test Condition: 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)



Pin Connections

Pin No.	Connection
#1	V _{CONT}
#2	GND
#3	Output
#4	V _{CC}

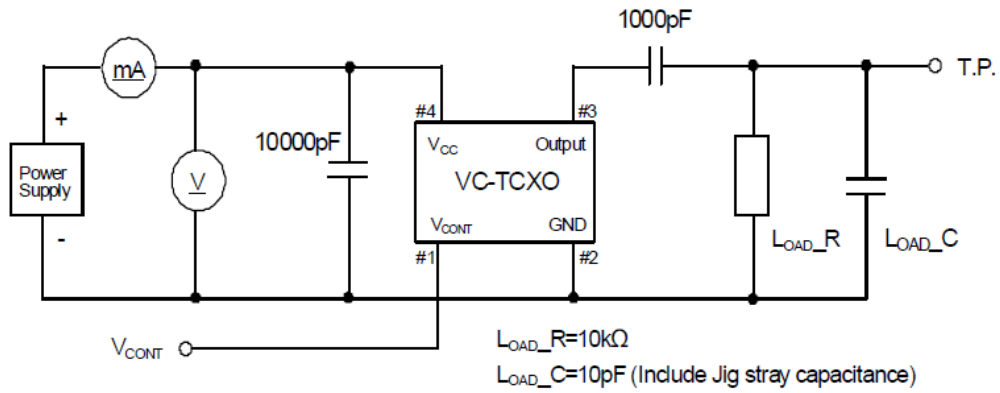


- (1) Plant code One or two letters
- (2) Frequency 19.2(MHz,3digits)
- (3) Logo D
- (4) Date code Year(1 digit)+Week(2digits)
e.g. 2024/1/1 → 401

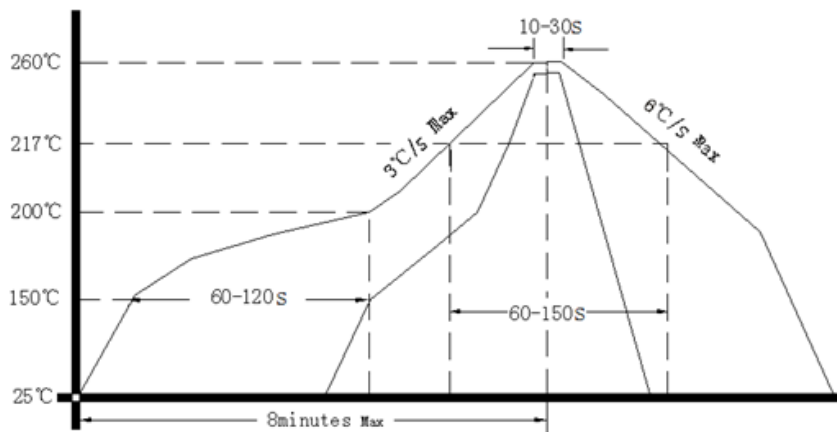
Note1: Tolerance ± 0.20 mm without mark



3、 Test Circuit



4、 Reflow Soldering Curve (RoHS)



5、 Package: Tape & Reel (mm)

