

Travelling Merchant: _____

DATASHEET

Standard: **T53-Q513-25.00MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2021.04.23			

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2021.04.23

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1. Electrical Parameters

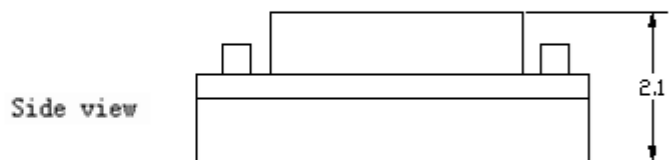
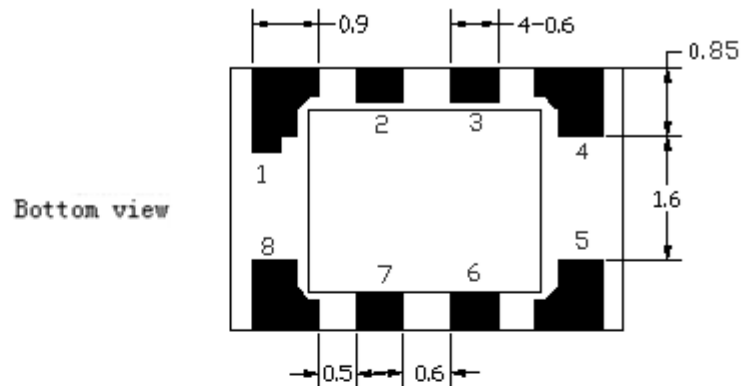
MODEL: T53-Q513-25.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	25.00			MHz	
	Output Waveform	Clipped Sine Wave				
	Vp-p	0.8			V	
	Load	10KΩ//10pF				
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.1		+0.1	$\times 10^{-6}$	T _A varied from -40°C to 85°C, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V _{cc} =3.3V, V _c =1.5V, O _{load} =10KΩ//10pF, temperature variable speed less than 2°C per minute.
	Nominal Frequency Tolerance	-1		+1	$\times 10^{-6}$	Measurement referenced to frequency observed with T _A =25°C, V _{cc} =3.3V, V _c =1.5V within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.1		+0.1	$\times 10^{-6}$	measurement referenced to frequency observed T _A =25°C, V _{cc} varied from 3.135V to 3.465V, V _c =1.5V and O _{Load} =10KΩ//10pF.
	Frequency Tolerance vs. Load	-0.1		+0.1	$\times 10^{-6}$	10% load change measurement referenced to frequency observed with T _A =25°C, V _{cc} =3.3V, V _c =1.5V and O _{Load} =10KΩ//10pF.
	Holdover stability (Free-run accuracy)	-4.6		+4.6	$\times 10^{-6}$	Includes initial frequency tolerance, frequency / temperature characteristics, frequency / load coefficient, frequency /voltage coefficient and frequency aging (+25°C, 20 years)
	Aging Tolerance 1 Year	-0.5		+0.5	$\times 10^{-6}$	T _A =25°C, V _{cc} =3.3V, V _c =1.5V and after 1h of operation.
Power Supply	Supply Current			10	mA	@25°C, V _{cc} =3.3V, V _c =1.5V, O _{Load} =10KΩ//10pF.
	Supply Voltage	3.135	3.3	3.465	V	



Voltage Control	Frequency tuning range		-5	$\times 10^{-6}$	$V_c=0.5V$. measurement referenced to $V_c=1.5V$.	
		-1	+1	$\times 10^{-6}$	$V_c=1.5V$. measurement referenced to Exactly 25.00MHz.	
		+5		$\times 10^{-6}$	$V_c=2.5V$. measurement referenced to $V_c=1.5V$.	
	Linearity		10	%		
	Input Impedance	100			K Ω	
Phase Noise	Phase Noise @25°C		-85		10Hz	
			-116		100Hz	
			-137		1KHz	
			-152		10KHz	
			-154		100KHz	
			-156		1MHz	
Environmental Conditions	Operable Temperature	-40	+85	°C		
	Storage Temperature	-55	+105	°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 3.				
	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.					
Full Package Storage	Relative humidity (%)	20% ~70%				
	Temperature (°C)	-10~35°C				

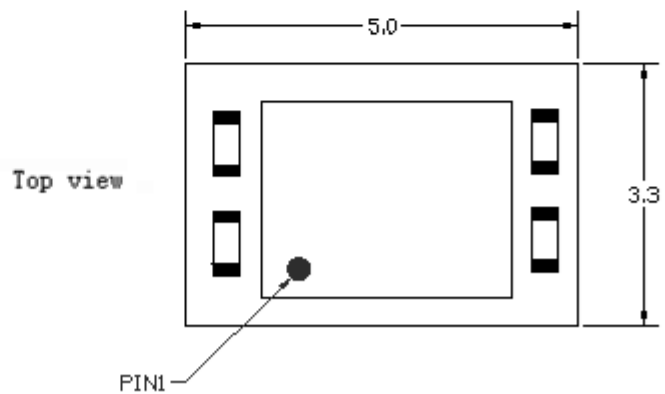


2. Mechanical Structure(mm)



PIN FUNCTION

PIN	NOTATION	FUNCTION
1	VC	Control Voltage
2, 3	NC	Not Connect
4	GND	GND
5	OUTPUT	RF Output
6, 7	NC	Not Connect
8	VCC	Supply Voltage



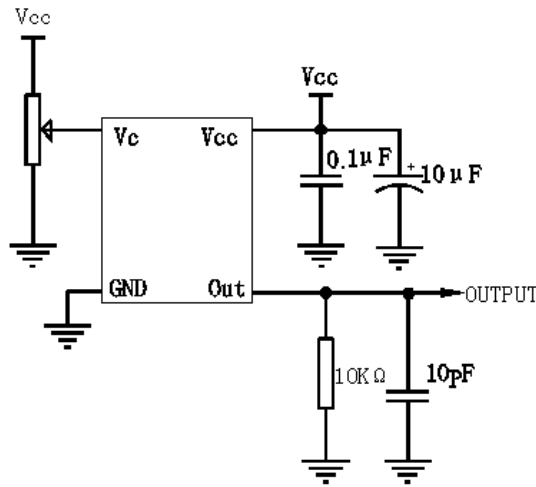
Note1: Tolerance $\pm 0.2\text{mm}$ without mark

Note2: Referential weight 0.05g

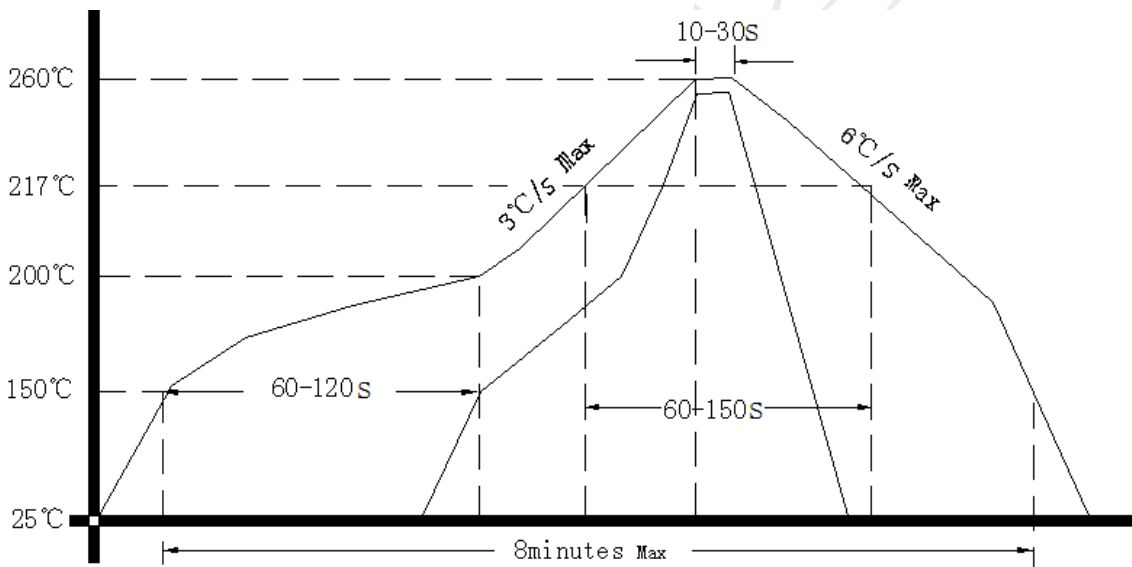
Note3: NC is not connect



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)

