Travelling Merchant:_____

DATASHEET

Standard: **T53-G513-24.576MHz-K**

P/N: _____

Plot			The Label
Drew	Audited	Approved	
Amway.wei	Carry.Wang	James.Liu	
Date: 2020.03.10			Stamp, please! Thanks!

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2020.03.10

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1. Electrical Parameters

MODEL: T53-G513-24.576MHz-K						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		24.576		MHz	
	Output Waveform		Clipped Sine Wave			
	Vp-p	0.8			V	
	Load		10KΩ//10pF			
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-1		+1	$\times 10^{-6}$	T_A varied from -40℃to 85℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=3.0V, V_c=1.5V, O_{load}=10KΩ//10pF, temperature variable speed less than 2℃per minute.
	Nominal Frequency Tolerance	-1		+1	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.0V, V_c=1.5V within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.01		+0.01	$\times 10^{-6}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 2.94V to 3.06V, V_c=1.5V and O_{Load}=10KΩ//10pF.
	Frequency Tolerance vs. Load	-0.01		+0.01	$\times 10^{-6}$	2% load change measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.0V, V_c=1.5V and O_{Load}=10KΩ//10pF .
	Reflow Shift	-0.5		+0.5	$\times 10^{-6}$	Pre to post reflow△F(measured ⩾60 min after reflow)
	In-service short Term Frequency Stability	-0.05		+0.05	$\times 10^{-6}$	All effects for 24H.
	Temperature Rate Of Change			1	℃/min	Maximum rate of change of temperature condition for guaranteed stability specifications.
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	T_A=25℃, V_{cc}=3.0V, V_c=1.5V and after 1h of operation.
	Aging Tolerance 10 Year	-3		+3	$\times 10^{-6}$	
Power Supply	Supply Current		2		mA	@25℃, V_{cc}=3.0V, V_c=1.5V, O_{Load}=10KΩ//10pF.
	Supply Voltage	2.85	3.0	3.15	V	

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Voltage Control	Frequency tuning range	-12		-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 24.576MHz.
		+5		+12	$\times 10^{-6}$	V_c=2.5V. measurement referenced to V_c=1.5V.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Phase Noise	Phase Noise		-90	-85	dBc/Hz	10Hz
			-115	-110		100Hz
			-135	-130		1KHz
			-150	-145		10KHz
			-152	-147		100KHz
			-152	-147		1MHz
Environmental Conditions	Operable Temperature	-40		+85	℃	
	Storage Temperature	-55		+105	℃	
	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 (℃)	-10~35℃				

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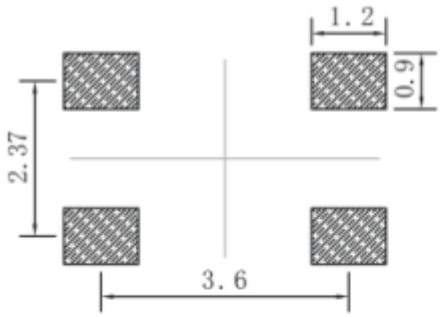
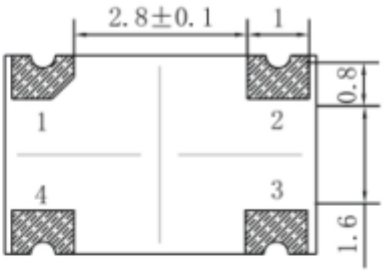
2. Mechanical Structure(mm)



Solder pad layout



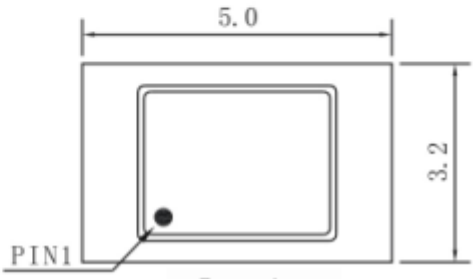
Bottom view


Right view

Side view

PIN FUNCTION

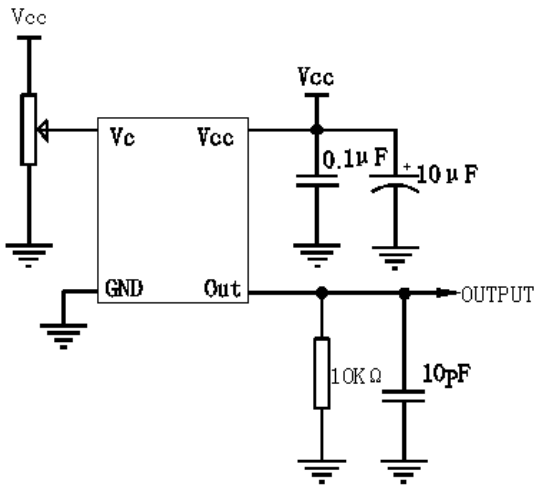
PIN	FUNCTION
1	VC
2	GND
3	OUTPUT
4	VCC



Top view

Note1: Tolerance ±0.2mm without mark
Note2: Referential weight 0.05g
Note3: NC is not connect

3. Test Circuit



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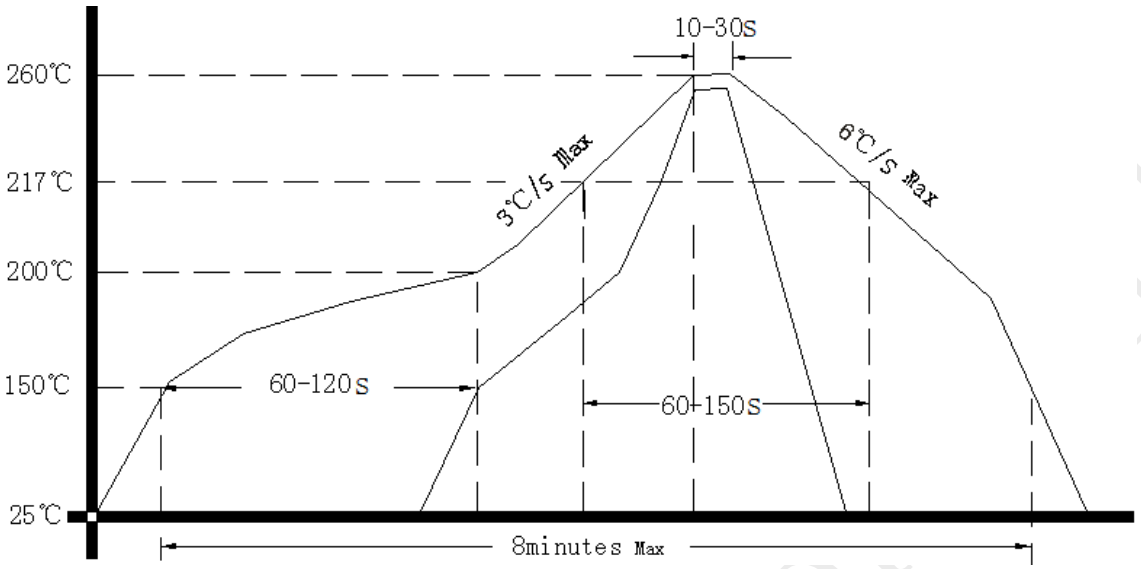
4. Reflow Soldering Curve (RoHS)



5. Package: Tape & Reel (mm)