Travelling Merchant:_____

DATASHEET

Standard: **T53-Z518-19.20MHz**

P/N: _____

Plot			The Label
Drew	Audited	Approved	
Amway.wei	Carry.Wang	James.Liu	
Date: 2014.04.25			Stamp, please! Thanks!

Guangdong Dapu Telecom Technology Co.,Ltd

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Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2014.04.25

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1. Electrical Parameters

MODEL： T53-Z518-19.20MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		19.20		MHz	
	Output Waveform		Clipped Sine Wave			
	Vp-p	0.8			V	
	Load		10KΩ//10pF			
	Jitter			1.7	ps	Frequency offset from carrier 10Hz to 1MHz
	Frequency Tolerance vs. Operating Temperature Range	-0.08		+0.08	$\times 10^{-6}$	T_A varied from 40℃ to 60℃, measurement referenced to frequency observed with T_A = 25℃, V_{cc}= 3.3V, V_c=1.5V,$O_{load=}$ 10KΩ//10pF , temperature variable speed less than 2℃per minute.
		-0.1		+0.1	$\times 10^{-6}$	T_A varied from 0℃ to 70℃, measurement referenced to frequency observed with T_A = 25℃, V_{cc}= 3.3V, V_c=1.5V,$O_{load=}$ 10KΩ//10pF , temperature variable speed less than 2℃per minute.
		-0.25		+0.25	$\times 10^{-6}$	T_A varied from-20℃ to 70℃, measurement referenced to frequency observed with T_A = 25℃, V_{cc}= 3.3V, V_c=1.5V, $O_{load=}$ 10KΩ//10pF , temperature variable speed less than 2℃per minute.
	Nominal Frequency Tolerance	-2		+2	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, V_{cc}=3.3V, V_c=1.5V ,1 hour after reflow
	Temperature rate of change			1	℃/min	Maximum rate of change of temperature
	Frequency Tolerance vs. Supply Voltage	-0.01		+0.01	$\times 10^{-6}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 3.23V to 3.37V , V_c=1.5V and O_{Load}= 10KΩ//10pF
	Frequency Tolerance vs. Load		±5		$\times 10^{-9}$	2% load change measurement referenced to frequency observed with T_A= 25℃, V_{cc}=3.3V, V_c=1.5V, O_{Load}= 10pF
	Aging Tolerance Per Day	-0.02		+0.02	$\times 10^{-6}$	T_A=25℃, V_{cc}=3.3V, V_c=1.5V and after 1h of operation
	Aging Tolerance 1 Month	-0.2		+0.2	$\times 10^{-6}$	

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	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	T_A=25℃, V_{cc}=3.3V, V_c=1.5V and after 1h of operation
	Aging Tolerance 3 Years	-2		+2	$\times 10^{-6}$	
Power Supply	Current Consumption			10	mA	@25℃, V_{cc}=3.3V, V_c=1.5V, O_{load}=10KΩ//10pF
	Supply Voltage	3.15	3.3	3.45	V	
Voltage Control Characteristics	Frequency Tuning Range	-15		-5	$\times 10^{-6}$	V_c=0.5V. measurement referenced to V_c=1.5V
		-2		+2	$\times 10^{-6}$	V_c=1.5V. measurement referenced to Exactly 19.20MHz
		+5		+15	$\times 10^{-6}$	V_c=2.5V. measurement referenced to V_c=1.5V
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Phase Noise	Phase Noise @25℃		-55	-50	dBc/Hz	1Hz
			-85	-80		10Hz
			-115	-110		100Hz
			-135	-130		1KHz
			-147	-142		10KHz
Environmental Conditions	Operable Temperature	-20		+70	℃	
	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; ANSI/ESDA/JEDEC JS-001-2010.				
	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.				

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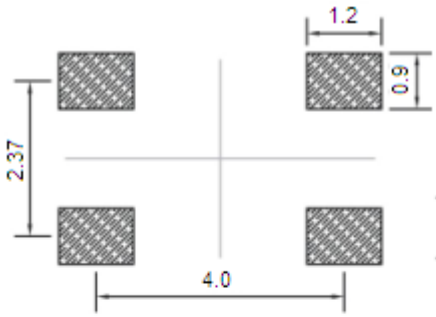
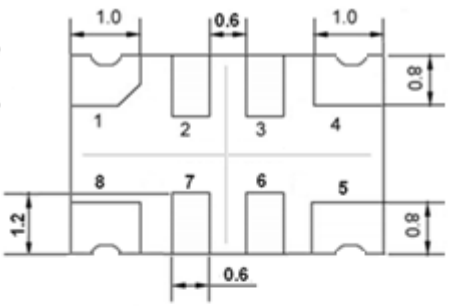
2. Mechanical Structure(mm)



Solder pad layout

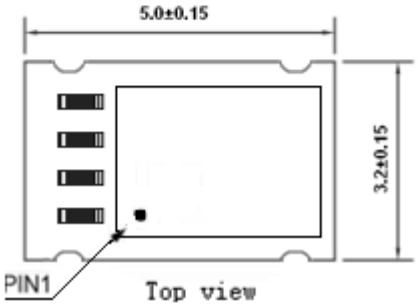


Bottom view

Side view

PIN FUNCTION

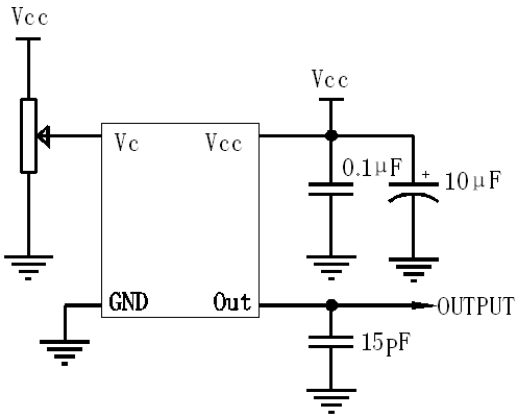
PIN	FUNCTION
1	VC
2、3	NC
4	GND
5	OUTPUT
6、7	NC
8	VCC



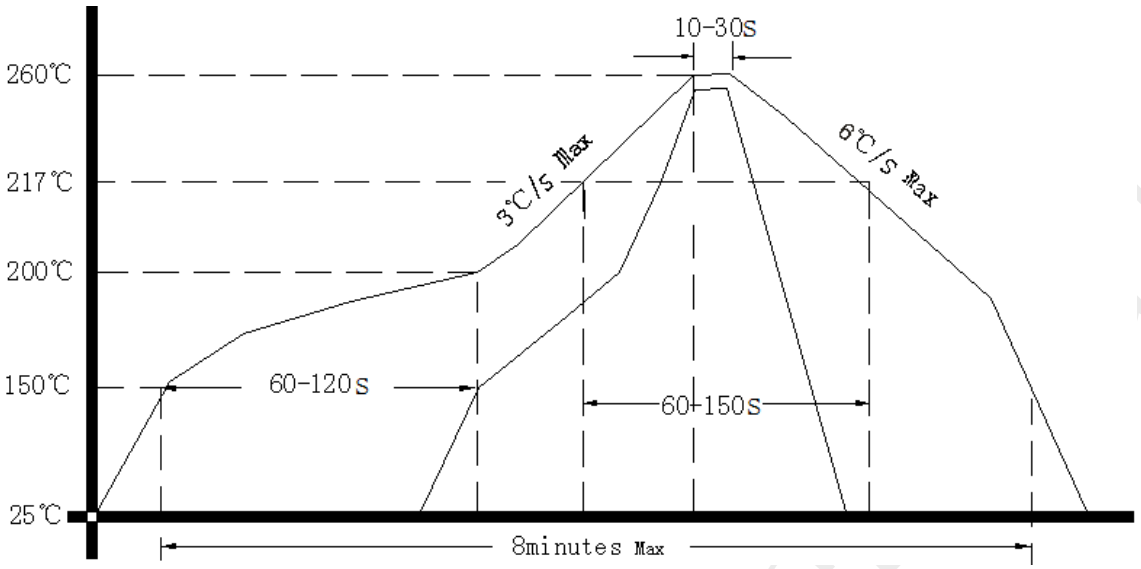
Top view

Note1: Tolerance ±0.1mm 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)