

Travelling Merchant: \_\_\_\_\_

# DATASHEET

Standard:     **T53-G519-20.00MHz-B**    

P/N: \_\_\_\_\_

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2025.03.21			

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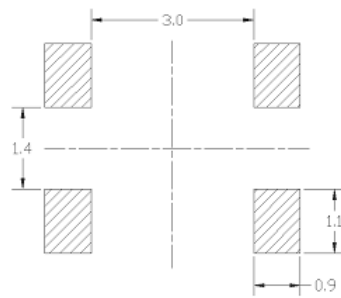
## 1. Electrical Parameters

MODEL: T53-G519-20.00MHz-B						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	20.00			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 <sub>A</sub> varied from -55°C to 85°C, measurement referenced to frequency observed with f <sub>ref</sub> =(f <sub>max</sub> +f <sub>min</sub> )/2, V <sub>cc</sub> =3.3V, O <sub>load</sub> =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 <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.05		+0.05	$\times 10^{-6}$	measurement referenced to frequency observed T <sub>A</sub> =25°C, V <sub>cc</sub> varied from 3.13V to 3.47V and O <sub>Load</sub> =10KΩ//10pF.
	Frequency Tolerance vs. Load	-0.05		+0.05	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, and O <sub>Load</sub> =10KΩ//10pF .
	Aging Tolerance Per Day	-0.02		+0.02	$\times 10^{-6}$	T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V and after 1h of operation.
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	
Power Supply	Operating Current			10	mA	@25°C, V <sub>cc</sub> =3.3V, O <sub>Load</sub> =10KΩ//10pF.
	Supply Voltage	3.13	3.3	3.47	V	
Phase Noise	Phase Noise @25°C		-115		dBc/Hz	100Hz
			-135			1KHz
			-150			10KHz

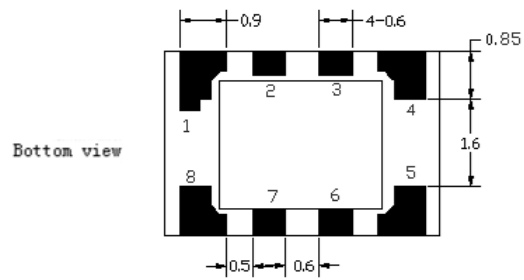


Environmental Conditions	Operable Temperature	-55		+85	°C	
	Storage Temperature	-55		+105	°C	
	ESD Level	Human Body Model,class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; JEDEC JESD22-A115C.				
	Moisture Sensitivity Level	Level 2.				
	Vibration	Test Condition: 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.					

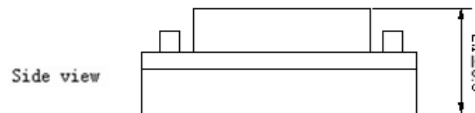
## 2. Mechanical Structure(mm)



Solder pad layout



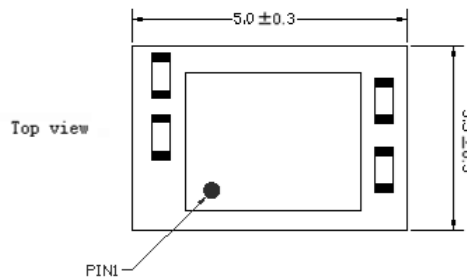
Bottom view



Side view

### PIN FUNCTION

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



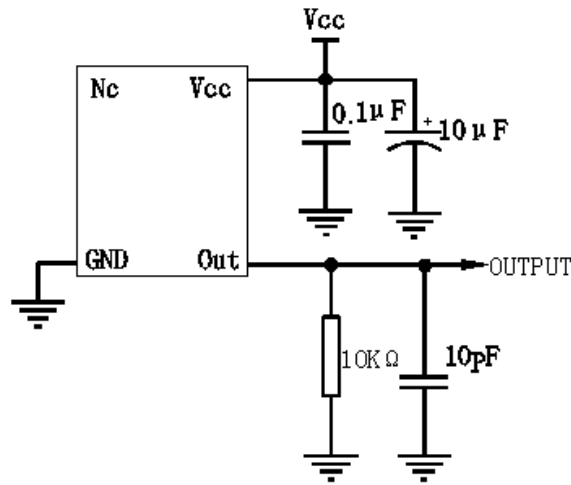
Top view

**Note1:** Tolerance  $\pm 0.1\text{mm}$  without mark

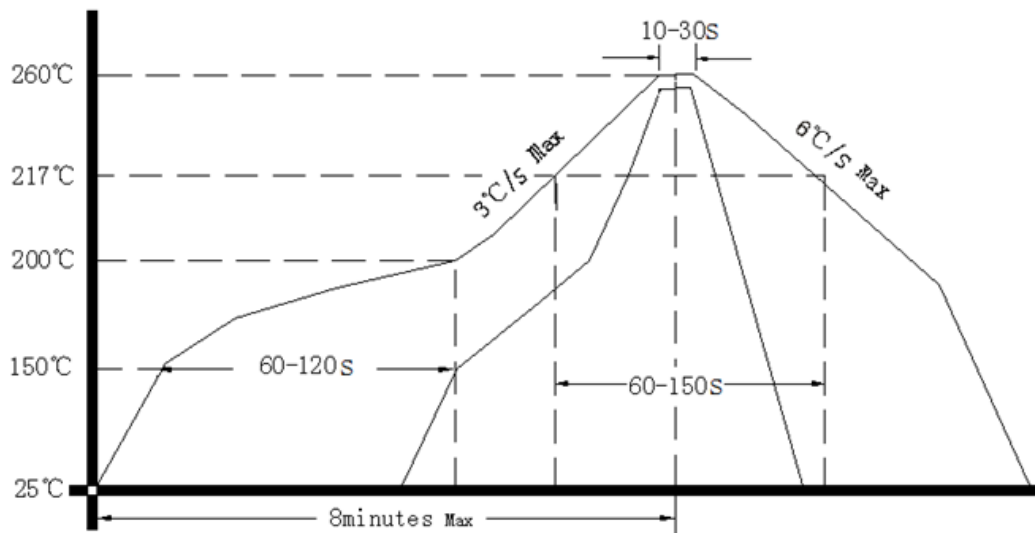
**Note2:** Referential Weight 0.05g



### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package: Tape & Reel (mm)

