

Customer Code : \_\_\_\_\_

# DATASHEET

DAPU P/N :           **T32-S511-50.00MHz**          

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2022.10.20			

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### Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2022.03.08
1.1	The "Moisture Sensitivity Level" changed	<i>Amway</i>	2022.07.14
1.2	The "Moisture Sensitivity Level" "Package: Tape & Reel" changed	<i>Amway</i>	2022.10.20



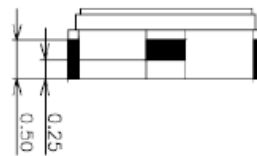
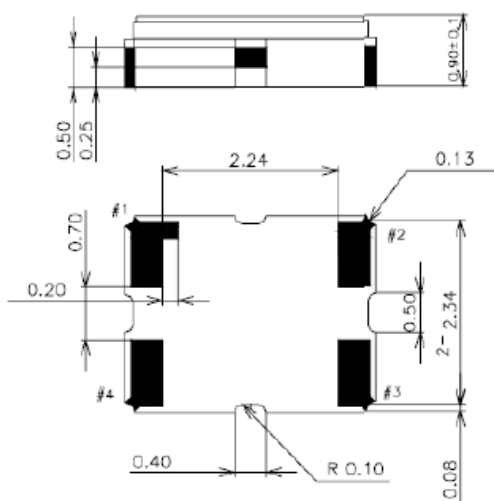
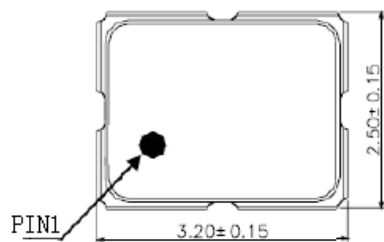
## 1. Electrical Parameters

MODEL: T32-S511-50.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	50.00			MHz	
	Output Waveform	Clipped Sine Wave				
	V <sub>p-p</sub>	0.6			V	
	Load	10KΩ//10pF				
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.5		+0.5	× 10 <sup>-6</sup>	T <sub>A</sub> varied from -40 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, V <sub>c</sub> =1.5V, O <sub>load</sub> =10KΩ//10pF, temperature variable speed less than 2°C per minute.
	Initial Frequency Tolerance	-1		+1	× 10 <sup>-6</sup>	Measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, V <sub>c</sub> =1.5V, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.2		+0.2	× 10 <sup>-6</sup>	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	-0.2		+0.2	× 10 <sup>-6</sup>	5% load change measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, V <sub>c</sub> =1.5V, O <sub>Load</sub> =10KΩ//10pF.
	Aging Tolerance Per Day	-0.02		+0.02	× 10 <sup>-6</sup>	T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, V <sub>c</sub> =1.5V, and after 1h of operation.
	Aging Tolerance 1 Year	-1		+1	× 10 <sup>-6</sup>	
Power Supply	Current Consumption			5	mA	@25°C, V <sub>cc</sub> =3.3V, V <sub>c</sub> =1.5V, O <sub>load</sub> =10KΩ//10pF.
	Supply Voltage	3.13	3.3	3.47	V	
Voltage Control	Frequency tuning range	-15		-6	× 10 <sup>-6</sup>	V <sub>c</sub> =0.5V. measurement referenced to V <sub>c</sub> =1.5V.
		-1		+1	× 10 <sup>-6</sup>	V <sub>c</sub> =1.5V. measurement referenced to Exactly 50.00MHz.
		+6		+15	× 10 <sup>-6</sup>	V <sub>c</sub> =2.5V. measurement referenced to V <sub>c</sub> =1.5V.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	



Phase Noise	Phase Noise		-105	-100	dBc/Hz	100Hz
			-130	-125		1KHz
			-145	-140		10KHz
			-145	-140		100KHz
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 1.				
	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

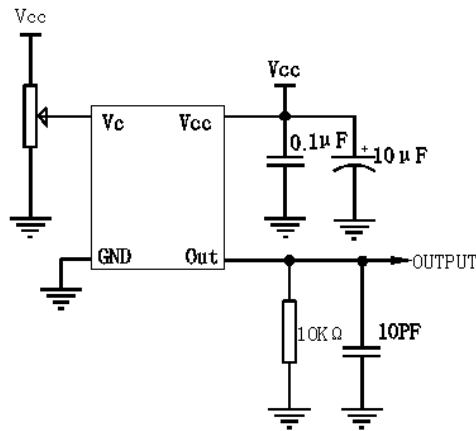
PIN	FUNCTION
1	VC
2	GND
3	OUTPUT
4	VCC

**Note1:** Tolerance ±0.1mm without mark

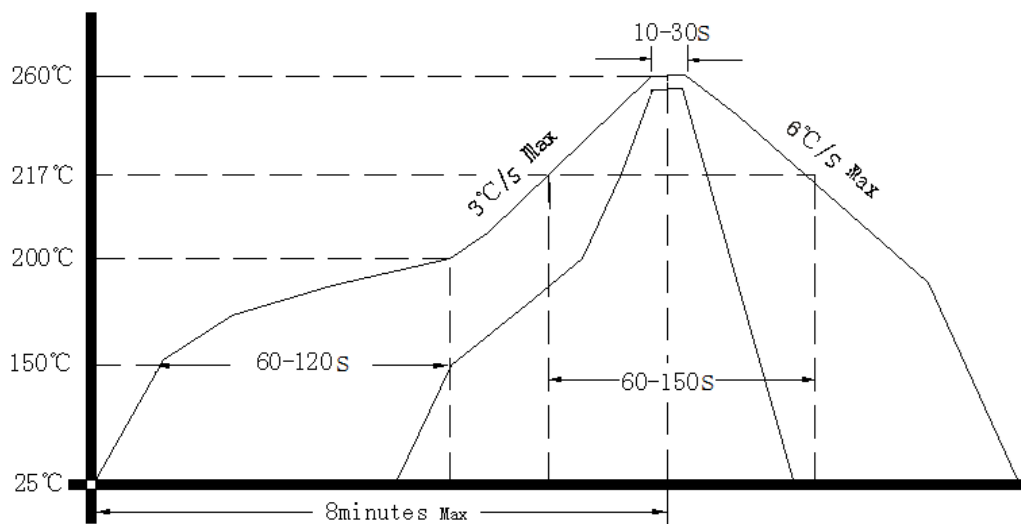
**Note2:** Referential weight 0.02g



### 3. Test circuit



### 4. Reflow Soldering Curve (RoHS)



Note: If soldering with a hot air gun, ensure the temperature <math>< 320^{\circ}\text{C}</math> , soldering time <math>< 15</math> seconds.

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

