

CUSTOMER: \_\_\_\_\_

# DATASHEET

PRODUCT TYPE:                   DPTC2016                  

DAPU P/N:           T2016C-A579-52.00MHz          

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
LIN Jianhua	David	William	
Date: 2023.07.28			

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**Table of amendment**

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	LIN Jianhua	2023.07.28
1.1	1. Update the product dimensions, Phase Noise, MSL; 2. Add clock drift	Jieshu ZHENG	2025.01.20



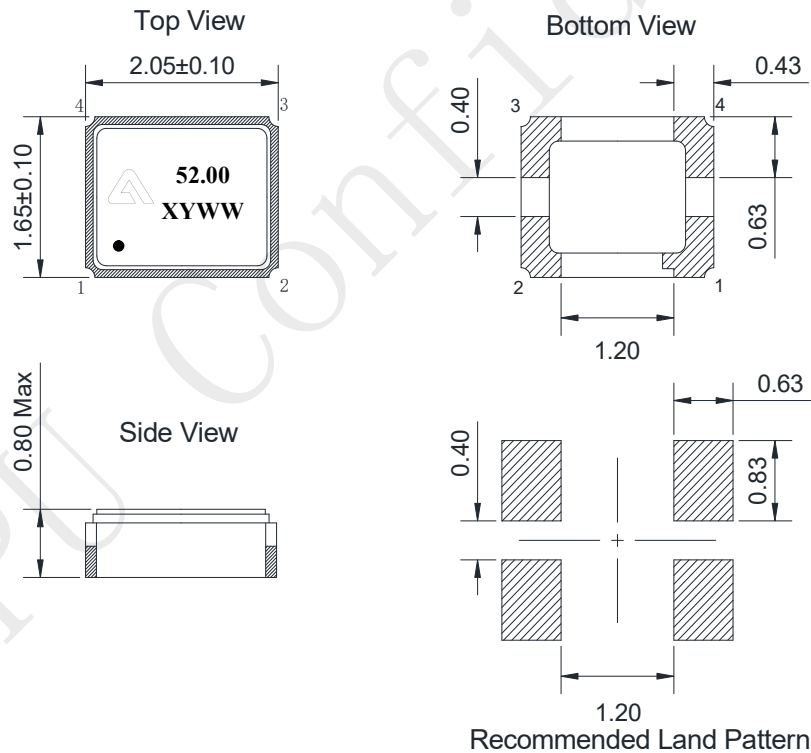
## 1. Electrical Parameters

MODEL: T2016C-A579-52.00MHz							
Item	Description	Parameters			Unit	Test Condition	
		Min.	Typ.	Max.			
Output	Frequency	52.00			MHz		
	Output Waveform	Clipped Sine Wave			-		
	Vp-p	0.8		-	V		
	Load	10KΩ//10pF			-		
	Harmonic	-		-8	dBc		
Frequency Stabilities	Frequency Tolerance	-1.5		+1.5	$\times 10^{-6}$	@25±2°C, 2H, after 2 times reflow soldering, base on nominal frequency.	
	vs. Temperature	-0.5		+0.5	$\times 10^{-6}$	T <sub>A</sub> varied from -40°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> =1.8V, O <sub>load</sub> =10KΩ//10pF, temperature variable speed less than 2°C per minute.	
	vs. Supply Voltage	-0.1		+0.1	$\times 10^{-6}$	measurement referenced to frequency observed T <sub>A</sub> =25°C, V <sub>cc</sub> = 1.8±5%, and O <sub>Load</sub> =10KΩ//10pF.	
	vs. Load	-0.1		+0.1	$\times 10^{-6}$	10% load change measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =1.8V, and O <sub>Load</sub> =10KΩ//10pF .	
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	T <sub>A</sub> =25°C, V <sub>cc</sub> =1.8V, and after 1h of operation.	
	Clock Drift	-15		15	ppb/s	-40°C to 85°C, 0.17°C/s	
	Frequency Slope	-0.1		0.1	ppm/°C	T <sub>A</sub> varied from -40°C to 85°C	
Power Supply	Current consumption			3	mA	@25°C, V <sub>cc</sub> =1.8V, O <sub>Load</sub> =10KΩ//10pF.	
	Start up Time			2	ms	More than 90% of final output voltage	
	Supply Voltage	1.71	1.8	1.89	V		
	Phase Noise				-113	dBc/Hz	100Hz
					-138		1KHz
					-145		10KHz
				-153	100KHz		
			-155	1MHz			



Environmental Conditions	Operable Temperature	-40	+85	°C	
	Storage Temperature	-40	+105	°C	
	ESD Level	Human Body Model, class2: 2000V; ANSI/ESDA/JEDEC JS-001-2010.			
		Machine Model, class B: 200V; 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 NAME	CONNECTION
PIN1	NC
PIN2	GND
PIN3	FOUR
PIN4	VCC

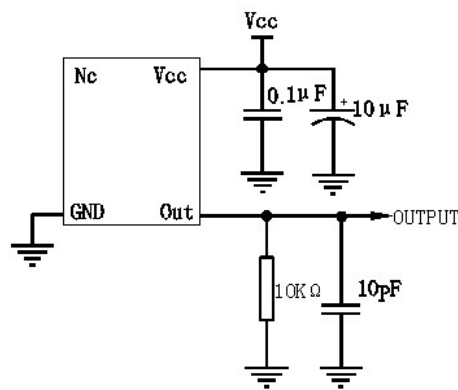
Note1: N/C is not connected



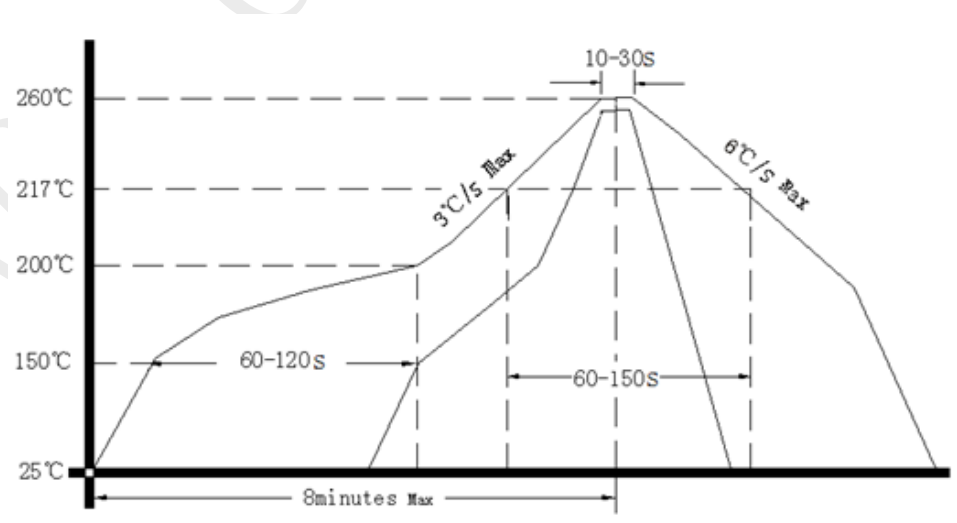
### 3. Marking Information

52.00: Frequency 52.00MHz	
△:DAPU Logo	
X: Lot No.	
Y: Year	
WW: Week	
● : Pin1 Index	

### 4. Test Circuit



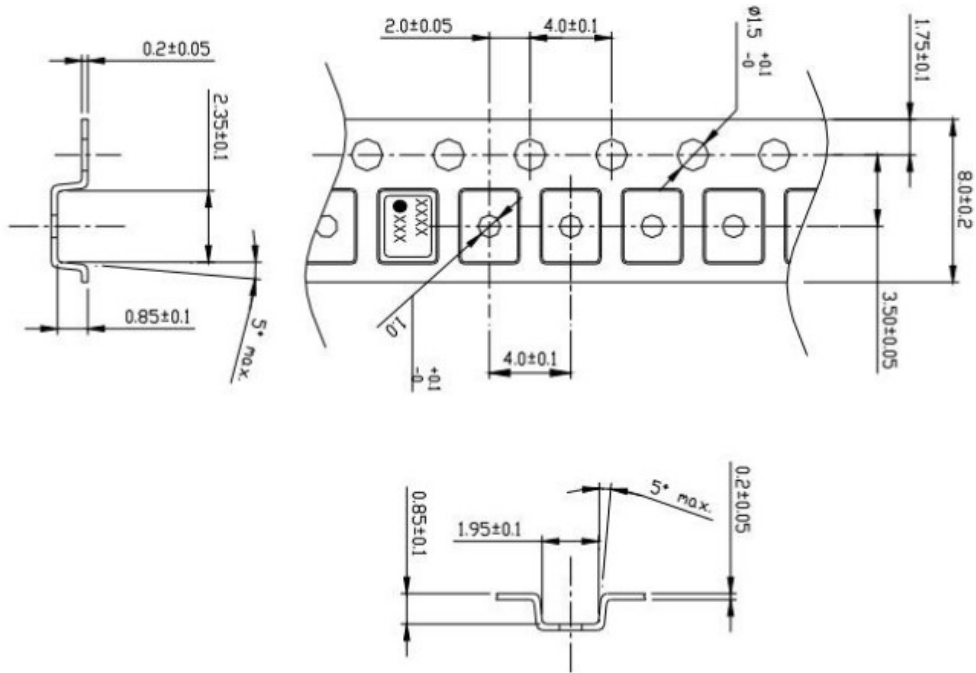
### 5. Reflow Soldering Curve (RoHS)





## 6. Packing Information

1) Carrier tape and taping reel sizes (Unit: mm)

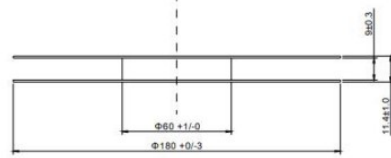
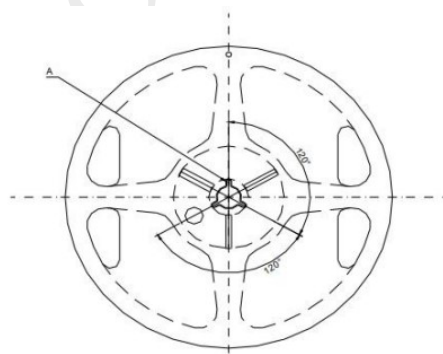


1. Clearance of an embossing tape, and a product unit: mm

Direction	Pocket size	TCXO size	Clearance
L	2.35±0.10	2.00±0.15	0.35±0.25
W	1.95±0.10	1.60±0.15	0.35±0.25
H	0.85±0.05	0.70±0.10	0.15±0.15

2. Quality : Polystyrene (Conductivity)

3. Tensile strength of an embossing tape : more than 14N



Material:Polystyrene (Conductivity)  
unit:mm

Section A

