

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

# DATASHEET

Standard: 079A-C319-25.00MHz-A

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

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2023.04.03			

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## 1. Electrical Parameters

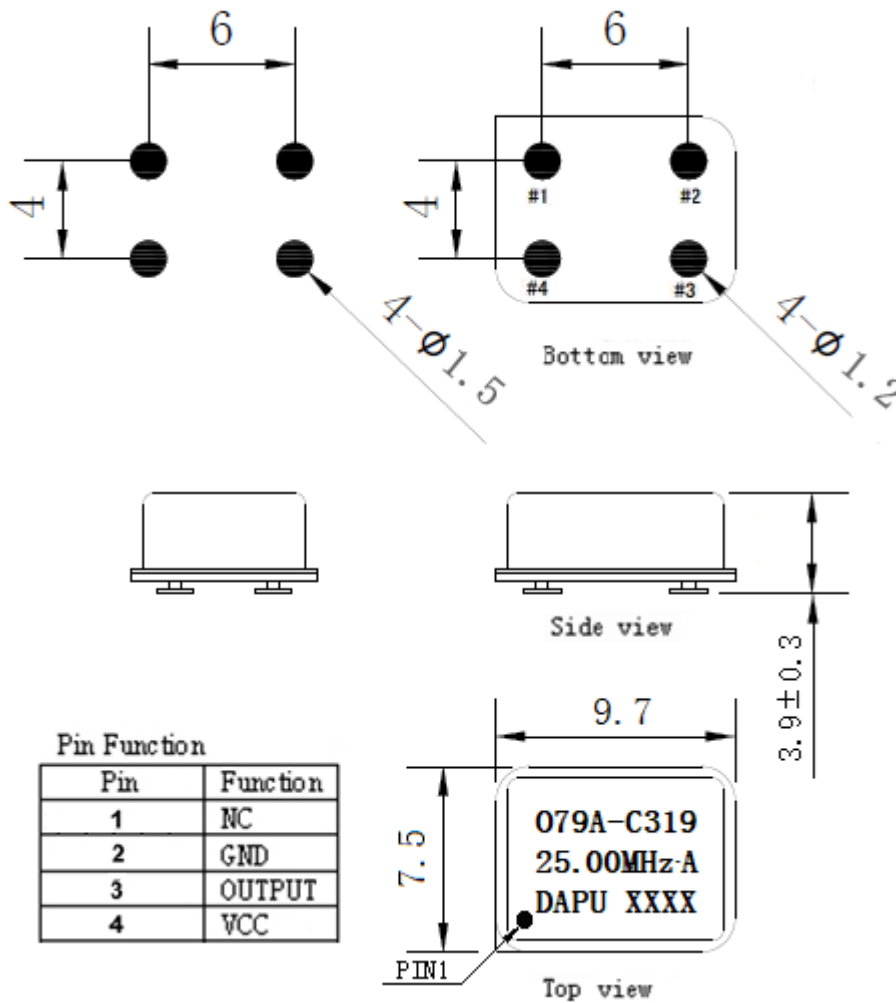
MODEL: O79A-C319-25.00MHZ-A						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	25.00			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.4	V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Output High Voltage	2.4			V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Duty Cycle	45		55	%	@50%
	Rise / Fall Time			5	ns	10%~90%
	Load	15			pF	
Frequency Stabilities	Free-run Accuracy	-4.6		+4.6	$\times 10^{-6}$	All causes, 20 years life, reference to nominal frequency
	Frequency Tolerance vs. Operating Temperature Range	-0.02		+0.02	$\times 10^{-6}$	$T_A$ varied from $-40^{\circ}\text{C}$ to $85^{\circ}\text{C}$ , measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2, V_{cc}=3.3V, O_{load}=15\text{ pF}$ , temperature variable speed less than $2^{\circ}\text{C}$ per minute.
	Initial Frequency Tolerance	-0.5		+0.5	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}, V_{cc}=3.3V$ within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.01		+0.01	$\times 10^{-6}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}, V_{cc}$ varied from 3.135V to 3.465V, and $O_{Load}=15\text{ pF}$ .
	Frequency Tolerance vs. Load	-0.01		+0.01	$\times 10^{-6}$	5% load change measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}, V_{cc}=3.3V, O_{Load}=15\text{ pF}$ .
	Reflow Shift	-1		+1	$\times 10^{-6}$	After 1 hour recovery at $25^{\circ}\text{C}$
	Frequency Slope in Still air	-2		+2	$\times 10^{-9}/^{\circ}\text{C}$	$T_{amb}$ slope $\pm 1^{\circ}\text{C}/\text{min}$ Max,
	G-Sensitivity		2		$\times 10^{-9}/\text{G}$	Gamma vector of all three axes from 30 Hz to 1500 Hz,
	Holdover Drift	-4		+4	$\times 10^{-9}$	24 hours, temperature variation $\leq \pm 1^{\circ}\text{C}$ After 30 days of continuous operation,
	Aging Tolerance Per Day	-2		+2	$\times 10^{-9}$	$T_A=25^{\circ}\text{C}, V_{cc}=3.3V$ , and after 30 days of operation.
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	
	Aging Tolerance 20 Years	-3		+3	$\times 10^{-6}$	



	Short Term Stability		0.07		$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1 hour ref. to 25°C; 0.1s.
			0.07		$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1 hour ref. to 25°C; 1s.
			0.07		$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1 hour ref. to 25°C; 10s.
			0.08		$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1 hour ref. to 25°C; 100s.
			0.08		$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1 hour ref. to 25°C; 1000s.
	Warm up Time			3	min	@25°C within $\pm 0.02 \times 10^{-6}$ of final frequency with reference after 1 hour on.
	Steady Consumption			230	mA	@25°C
	Warm up current			600	mA	
	Supply Voltage	3.135	3.3	3.465	V	
Phase Noise	Phase Noise @25°C		-70	-65	dBc/Hz	1Hz
			-96	-91		10Hz
			-123	-118		100Hz
			-143	-138		1KHz
			-152	-147		10KHz
			-153	-148		100KHz
			-154	-149		1MHz
Environmental Conditions	Operating Temperature	-40		+85	°C	
	Storage Temperature	-55		+125	°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.					



## 2. Mechanical Structure(mm)



**Note1:** Tolerance  $\pm 0.3\text{mm}$  without mark

**Note2:** The first two xx representative: week  
After two xx representative: year

**Note3:** Referential Weight 0.7g

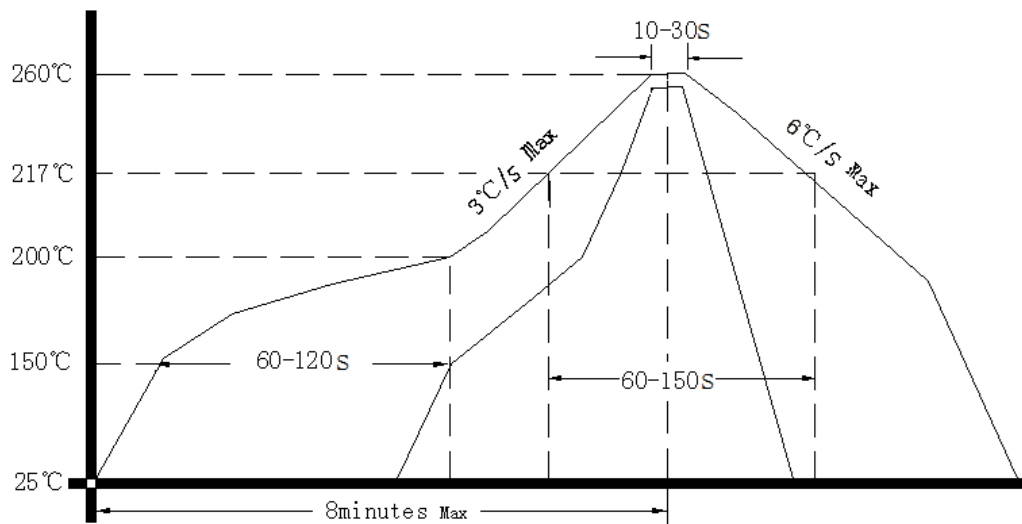
**Note4:** NC is not connect



### 3. Test circuit



### 4. Reflow Soldering Curve (RoHS)



Note: Passing through reflow upside down is not supported

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

