

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

# DATASHEET

Standard:           **O79A-K319-12.80MHz**          

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

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2020.11.11			

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## 1. Electrical Parameters

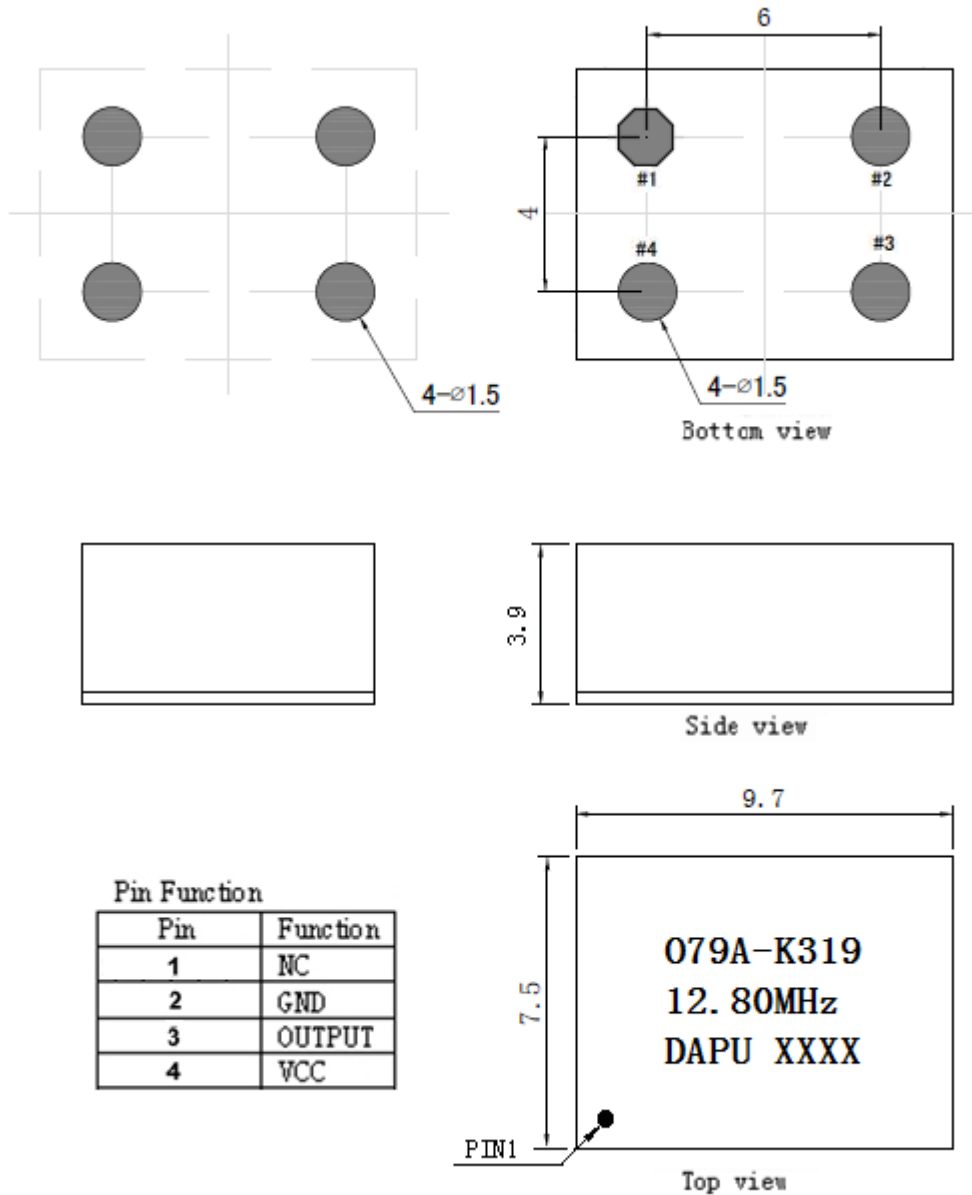
MODEL: O79A-K319-12.80MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	12.80			MHz	
	Output Waveform	HCMOS				
	Output Low Voltage			0.33	V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Output High Voltage	2.4	2.97		V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Duty Cycle	45		55	%	@50%
	Rise / Fall Time			4	ns	@25 °C, 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°C to 85°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°C per minute.
	Initial Frequency Tolerance	-1		+1	$\times 10^{-6}$	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 $T_A=25^\circ\text{C}, V_{cc}=3.3V, O_{Load}=15\text{ pF}$ .
	Holdover Stability Constant Temperature	-3		+3	$\times 10^{-9}$	In still air, 24 hours, temperature variation $\leq \pm 1^\circ\text{C}$ , after 30 days of continuous operation
	Slope	-1		+1	$\times 10^{-9}/^\circ\text{C}$	Temperature ramp 1 °C/minute max.
	Aging Tolerance Per Day	-2		+2	$\times 10^{-9}$	$T_A=25^\circ\text{C}, V_{cc}=3.3V$ , and after 1h of operation.
	Aging Tolerance 1 Year	-1		+1	$\times 10^{-6}$	
	Aging Tolerance 20 Year	-3		+3	$\times 10^{-6}$	
	Root Allan Variance		0.03		$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1 hour ref. to 25°C; 10s.
	Acceleration Sensitivity		2		$\times 10^{-9}/G$	Gamma vector of all three axes from 30Hz to 1500Hz



Power Supply	Supply Voltage	3.135	3.3	3.465	V	
	Steady Consumption			230	mA	@25°C, in still air.
	Warm up current			600	mA	
	Warm-Up Time			3	minutes	@25 °C within $\pm 0.02 \times 10^{-6}$ of final Frequency with reference after 1 hour on.
Phase Noise	Phase Noise @25°C		-80	-70	dBc/Hz	1Hz
			-115	-108		10Hz
			-146	-138		100Hz
			-153	-150		1KHz
			-158	-155		10KHz
			-164	-158		100KHz
			-167	-163		1MHz
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 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.					



## 2. Mechanical Structure(mm)



**Note1:** Tolerance  $\pm 0.2$ mm without mark

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

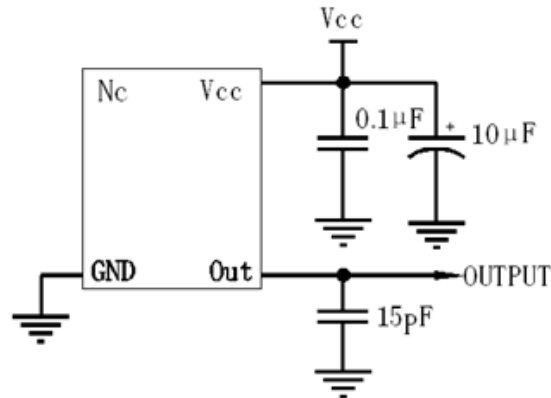
After two xx representative: year

**Note3:** Referential Weight 0.3g

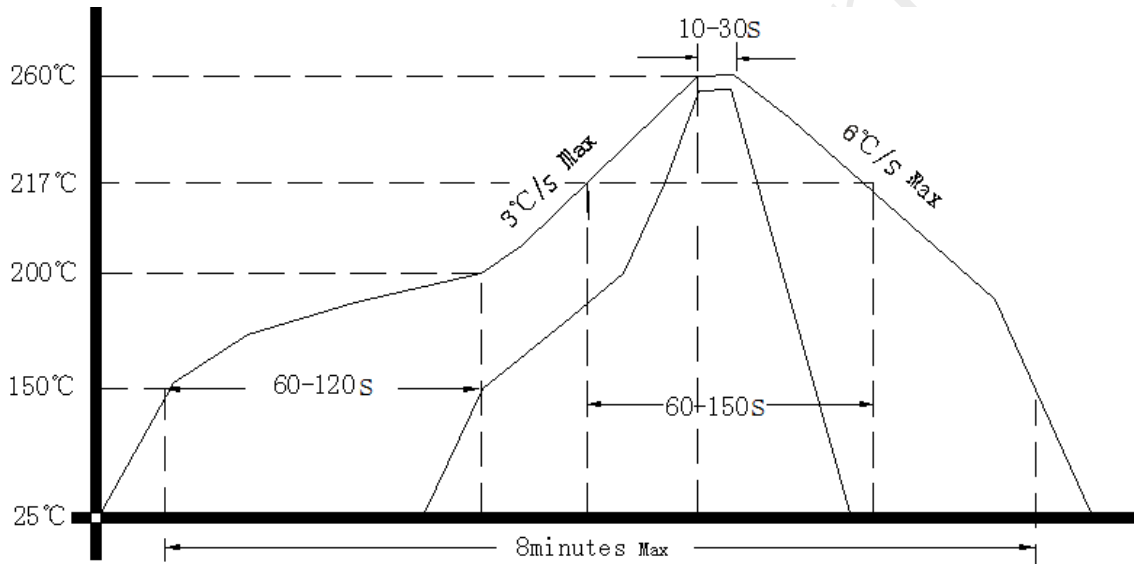
**Note4:** NC is not connect



### 3. Test circuit



### 4. Reflow Soldering Curve (RoHS)



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

