

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

# DATASHEET

Standard:     **O79A-E319-38.40MHz**    

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

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2022.02.12			

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### Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2022.02.12



## 1. Electrical Parameters

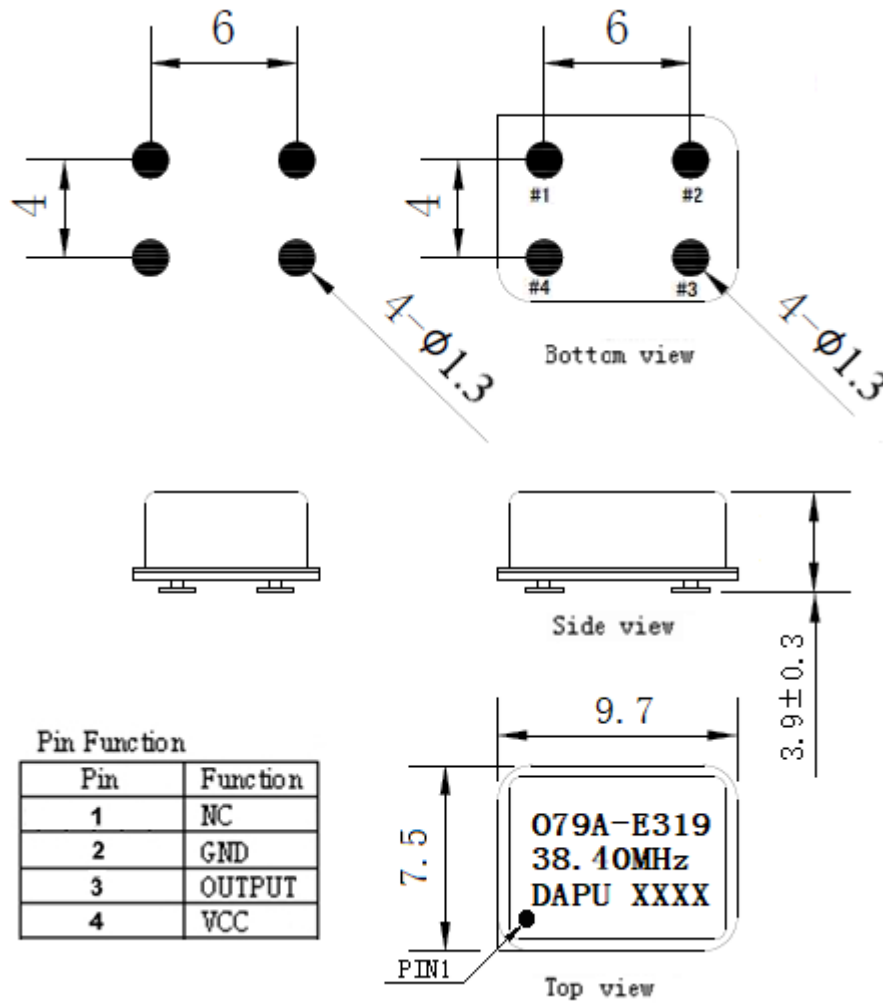
MODEL: O79A-E319-38.40MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	38.40			MHz	
	Output Waveform	LVCMOS				
	Output Low Voltage			0.4	V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Output High Voltage	2.4			V	$V_{cc}=3.3V, O_{load}=15\text{ pF}$
	Duty Cycle	45	50	55	%	@50%
	Rise / Fall Time (10%~90%)			4	ns	@25°C
	Load	15			pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.01		+0.01	$\times 10^{-6}$	$T_A$ varied from -40°C to 95°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	-5		+5	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^\circ\text{C}, V_{cc}$ varied from 3.13V to 3.47V, and $O_{Load}=15\text{ pF}$ .
	Frequency Tolerance vs. Load	-5		+5	$\times 10^{-9}$	10% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, O_{Load}=15\text{ pF}$ .
	Frequency slope	-0.5		+0.5	$\times 10^{-9}/^\circ\text{C}$	Temperature ramp $\leq 1^\circ\text{C}/\text{minute}, \Delta F/\Delta T$ in still air
	Acceleration Sensitivity		0.5	1	$\times 10^{-9}/g$	
	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	-0.5		+0.5	$\times 10^{-6}$	
	Aging Tolerance 10 Year	-3		+3	$\times 10^{-6}$	
Reflow shift	-0.5		+0.5	$\times 10^{-6}$	After 1 hour recovery at 25° C	



Power Supply	Supply Voltage	3.13	3.3	3.47	V	
	Steady Consumption			230	mA	@25°C
	Warm up current			500	mA	
	Warm-Up Time			3	min	@25°C, within $\pm 0.1 \times 10^{-6}$ of final frequency with reference after 1 hour on.
Phase Noise	Phase Noise @25°C		-70	-60	dBc/Hz	1Hz
			-105	-100		10Hz
			-140	-135		100Hz
			-156	-151		1KHz
			-162	-158		10KHz
			-162	-158		100KHz
			-162	-158		1MHz
Environmental Conditions	Operable Temperature	-40		+95	°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.					



## 2. Mechanical Structure(mm)



**Note1:** Tolerance  $\pm$ 0.3mm without mark

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

After two xx representative: year

**Note3:** Referential Weight 0.7g

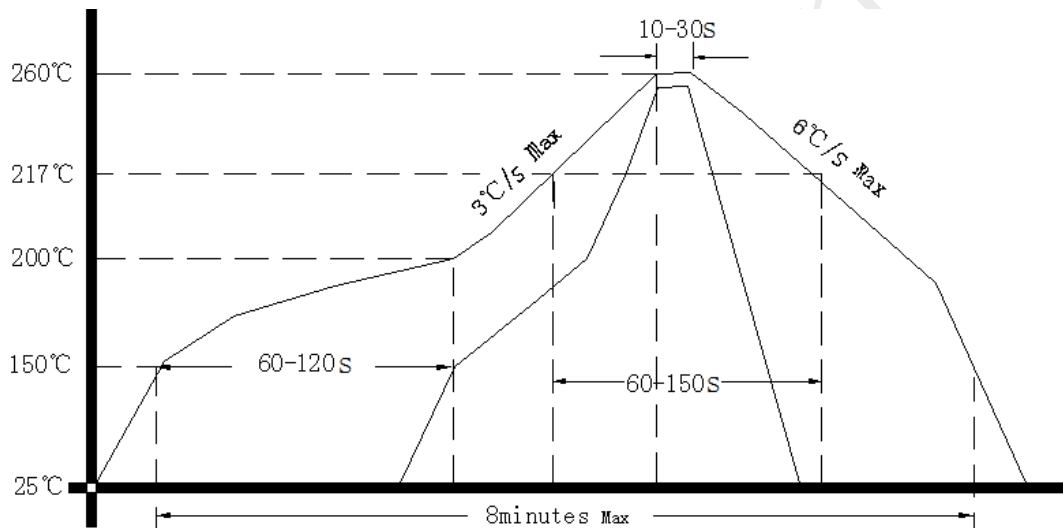
**Note4:** NC is not connect



### 3. Test circuit



### 4. Reflow Soldering Curve (RoHS)



Note: Passing through reflow upside down is not supported

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

