

Travelling Merchant: _____

DATASHEET

Standard: **O79A-K319-30.72MHz**

P/N: _____

| Plot | | | The Label |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2023.09.12 | | | |

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1. Electrical Parameters

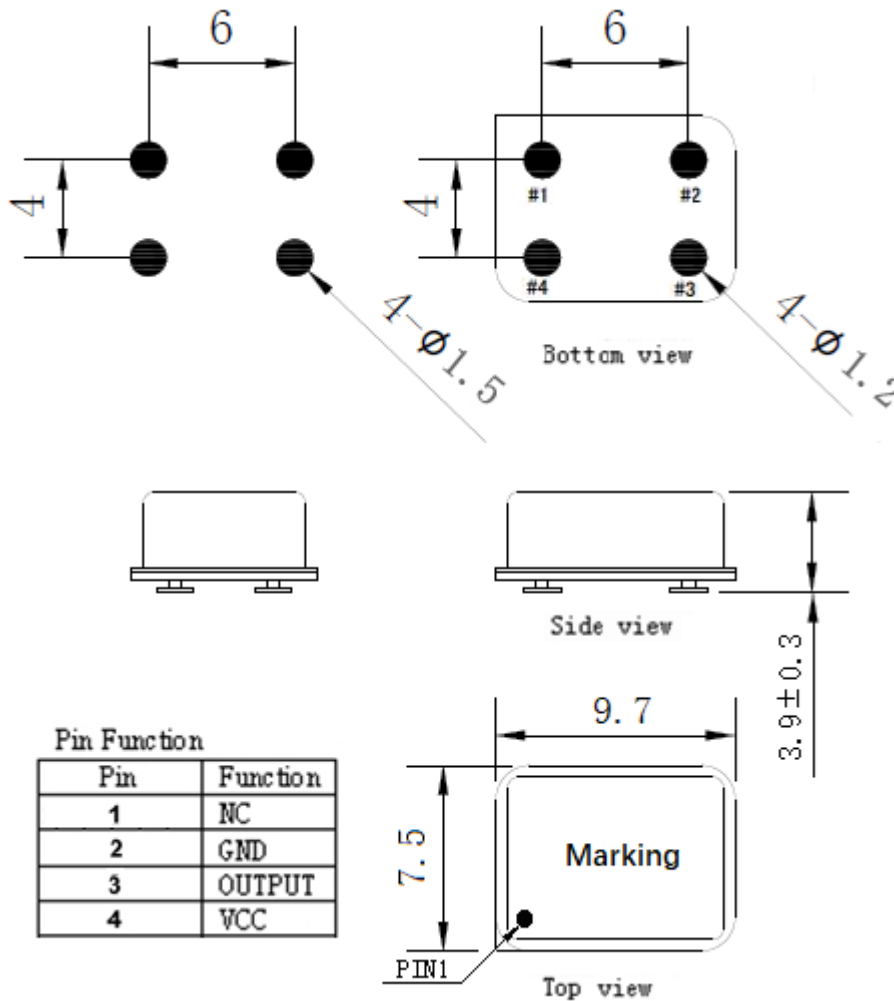
| MODEL: O79A-K319-30.72MHz | | | | | | |
|---------------------------|---|------------|------|-------|-----------------------------------|--|
| Item | Description | Parameters | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | 30.72 | | | MHz | |
| | Output Waveform | 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 | | | 6 | ns | 10%~90% |
| | Startup time till valid waveform | | | 50 | ms | Time until RF output waveform is within output level, duty cycle and rise/fall time spec |
| | 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 $T_A= -40\sim 95^{\circ}\text{C}, V_{cc}$ varied from 3.135V to 3.465V, and $O_{Load}=15\text{ pF}$. |
| | Frequency Tolerance vs. Load | -5 | | +5 | $\times 10^{-9}$ | 5% load change measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}, V_{cc}=3.3V, O_{Load}=15\text{ pF}$. |
| | Frequency vs. Temperature Slope | -0.5 | | +0.5 | $\times 10^{-9}/^{\circ}\text{C}$ | T_{amb} slope $\pm 1^{\circ}\text{C}/\text{min}$ with any temperature window over operating temperature range. Includes also hysteresis effects. Slope measurement for device qualification as described in the related note. |
| | Aging Tolerance Per Day | -3 | | +3 | $\times 10^{-9}$ | $T_A=25^{\circ}\text{C}, V_{cc}=3.3V$, and after 30 days of operation. |
| | Aging Tolerance 1 Year | -0.5 | | +0.5 | $\times 10^{-6}$ | |



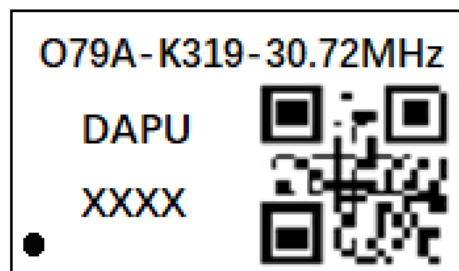
| | | | | | | | |
|-----------------------------|--|--|------|-------|------------------|--|--|
| | Warm up Time | | | 60 | s | T _A =25°C, Time until RF output is within ± 0.2 ppm referenced to last frequency reading 1 H after startup. | |
| | Steady Consumption | | | 230 | mA | @25°C | |
| | Warm up current | | | 600 | mA | | |
| | Supply Voltage | 3.135 | 3.3 | 3.465 | V | | |
| Phase Noise | Phase Noise -40~95°C | | -73 | -63 | dBc/Hz | 1Hz | |
| | | | -110 | -103 | | 10Hz | |
| | | | -140 | -130 | | 100Hz | |
| | | | -158 | -152 | | 1KHz | |
| | | | -165 | -160 | | 10KHz | |
| | | | -165 | -160 | | 100KHz | |
| | | | -165 | -160 | | 1MHz | |
| Environmental Conditions | Operating Temperature | -40 | | +95 | °C | | |
| | Operable Temperature | -45 | | +105 | °C | | |
| | Storage Temperature | -55 | | +105 | °C | | |
| | Relative Humidity Range | 5 | | 95 | % | | |
| | Absolute Humidity Range | 1 | | 29 | g/m ³ | | |
| | Air Pressure Range | 70 | | 106 | kPa | | |
| | 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)



Marking:



Note1: Tolerance ± 0.3 mm without mark

Note2: The first two xx representative: week

After two xx representative: year

Note3: Referential Weight 0.7g

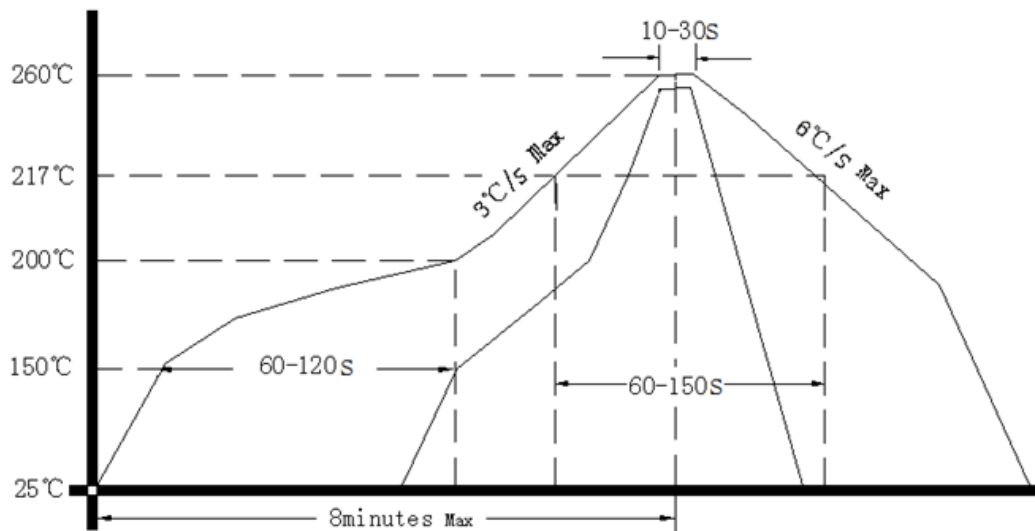
Note4: NC is not connect



3. Test circuit



4. Reflow Soldering Curve (RoHS)



Note: Passing through reflow upside down is not supported

5. Package: Tape & Reel (mm)

