

Travelling Merchant: _____

DATASHEET

Standard: **O75A-L319-40.00MHz-C198**

P/N: _____

| Plot | | | The Label |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2024.08.22 | | | |

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Table of amendment

| Version | Revision contents | Prepared by | Revised date |
|---------|-------------------|--------------|--------------|
| 1.0 | The first issued | <i>Amway</i> | 2024.08.22 |
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1. Electrical Parameters

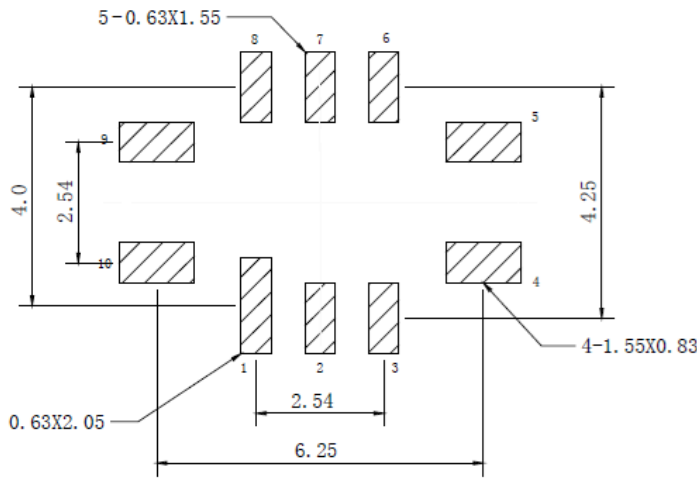
| MODEL: O75A-L319-40.00MHz-C198 | | | | | | |
|--------------------------------|---|------------|------|-------|------------------|--|
| Item | Description | Parameters | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | 40.00 | | | MHz | |
| | Output Waveform | HCMOS | | | | |
| | 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% |
| | Startup time till valid waveform | | | 15 | 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 | -0.05 | | +0.05 | $\times 10^{-6}$ | 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 | -1.5 | | +1.5 | $\times 10^{-6}$ | 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 $T_A=25^\circ\text{C}, V_{cc}=3.3V, O_{Load}=15\text{ pF}$. |
| | Short-Term Stability Allan Variance | | | 0.05 | $\times 10^{-9}$ | Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^\circ\text{C}; 1\text{ s}$. |
| | Aging Tolerance Per Day | -3 | | +3 | $\times 10^{-9}$ | $T_A=25^\circ\text{C}, V_{cc}=3.3V$, and after 30days of operation. |
| | Aging Tolerance Per Year | -0.3 | | +0.3 | $\times 10^{-6}$ | |



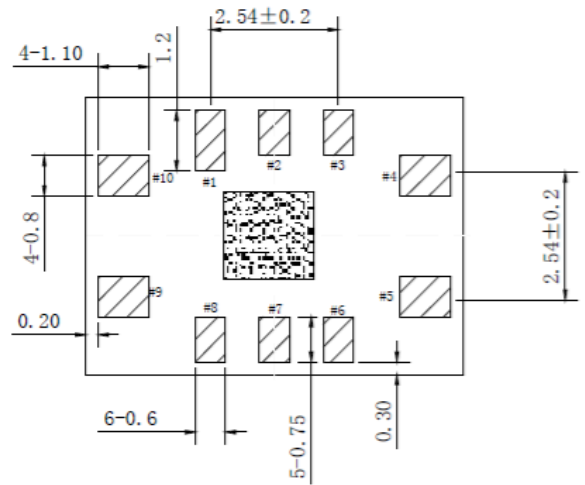
| | | | | | | |
|-----------------------------|--|--|------|-------|--------|--------|
| Power Supply | Steady Consumption | | | 230 | mA | @25°C |
| | Warm up current | | | 600 | mA | |
| | Supply Voltage | 3.135 | 3.3 | 3.465 | V | |
| Phase Noise | Phase Noise @25°C | | -110 | -100 | dBc/Hz | 10Hz |
| | | | -140 | -130 | | 100Hz |
| | | | -156 | -151 | | 1KHz |
| | | | -161 | -156 | | 10KHz |
| | | | -161 | -156 | | 100KHz |
| | | | -161 | -156 | | 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 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. | | | | | |



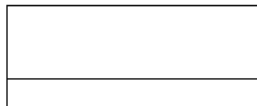
2. Mechanical Structure(mm)



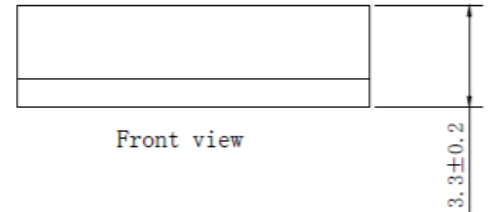
Solder pad layout



Bottom view



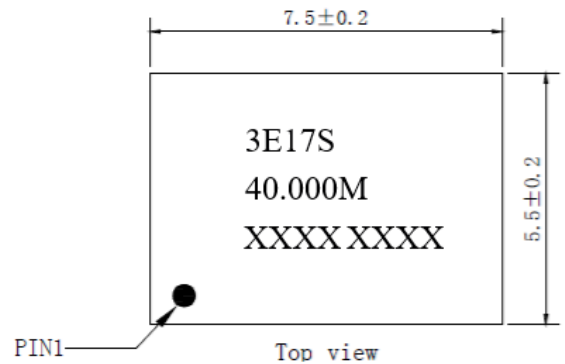
Right view



Front view

Pin Function

| Pin | Function |
|------------------|----------|
| 1, 2, 3, 6, 7, 8 | NC |
| 4 | GND |
| 5 | OUTPUT |
| 9 | VCC |
| 10 | NC |



Top view

Note1: Tolerance $\pm 0.2\text{mm}$ without mark

Note2: Referential Weight 0.3g

Note3: NC is not connect

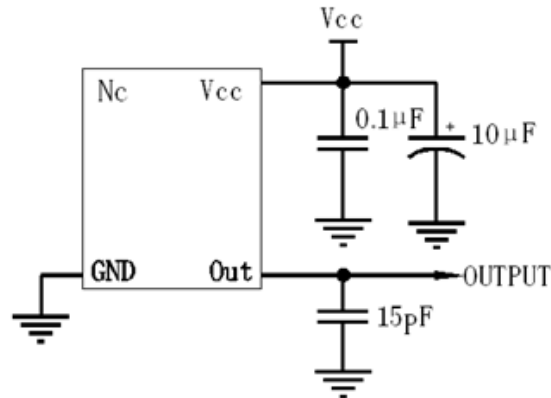
Note4: The first two xx representative: year

After two xx representative: week

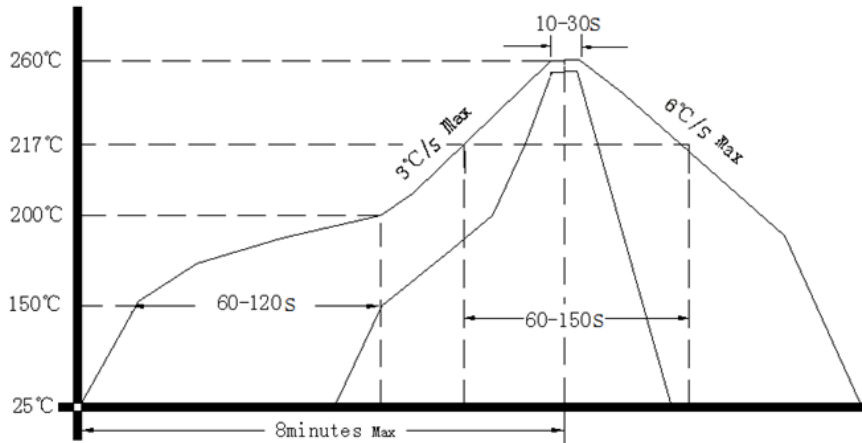
At last four xxxx representative: serial number



3. Test circuit



4. Reflow Soldering Curve (RoHS)



Note: Passing through reflow upside down is not supported

5. Package: Tape & Reel (mm)

