Travelling Merchant:_____

# DATASHEET

Standard: **O11A-M319-25.00MHz-B**

P/N: _____

| Plot | | | The Label |
|---|---|---|---|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| Amway.wei | Carry.Wang | James.Liu | |
| Date: 2017.03.28 | | | |


## Guangdong Dapu Telecom Technology Co.,Ltd

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, China

TEL：0086-0769-88010888 FAX：0086-0769-81800098

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PR China
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# Table of amendment

| Version | Revision contents | Prepared by | Revised date |
|---|---|---|---|
| 1.0 | The first issued | Amway | 2017.03.28 |
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## 1. Electrical Parameters

**MODEL： O11A-M319-25.00MHz-B**

| Item | Description | Parameters | | | Unit | Test Condition |
|---|---|---|---|---|---|---|
| | | Min. | Typ. | Max. | | |
| Output | Frequency | | 25.00 | | MHz | |
| | Output Waveform | | HCMOS | | | |
| | Output Low Voltage | | | 0.3 | V | $V_{cc}$=3.3V, $O_{load}$=15pF |
| | Output High Voltage | 2.4 | | | V | $V_{cc}$=3.3V, $O_{load}$=15pF |
| | Duty Cycle | 45 | 50 | 55 | % | @50% |
| | Rise / Fall Time (10%~90%) | | | 5 | ns | |
| | Spurious | | | -75 | dBc | |
| | Load | | 15 | | pF | |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | -0.2 | | +0.2 | $\times 10^{-6}$ | $T_A$ varied from-40℃ to 90℃, measurement referenced to frequency observed with $T_A$= 25℃, $V_{cc}$=3.3V, $O_{load}$=15pF, temperature variable speed less than 2℃per minute. |
| | Initial Frequency Tolerance | -0.1 | | +0.1 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A$=25℃, $V_{cc}$=3.3V, and after 15 minutes of operation, within 30 days after ex-works. |
| | Frequency Tolerance vs. Supply Voltage | -5 | | +5 | $\times 10^{-9}$ | measurement referenced to frequency observed $T_A$=25℃, $V_{cc}$ varied from 3.14V to 3.47V and $O_{Load}$=15pF. |
| | Frequency Tolerance vs. Load | -5 | | +5 | $\times 10^{-9}$ | 5% load change measurement referenced to frequency observed with $T_A$=25℃, $V_{cc}$=3.3V, and $O_{Load}$=15pF. |
| | Short-Term Stability: Allan Variance | | | 0.5 | $\times 10^{-9}$ | Temperature stability, no EMI\EMC or other interference，test after power for 1hour ref. to 25℃; 1s, using PN9000 equipment. |
| | Aging Tolerance Per Day | -1.0 | | +1.0 | $\times 10^{-9}$ | $V_{cc}$, $T_A$ constant measurement referenced to frequency observed with $T_A$=25℃, $V_{cc}$= 3.3V and after 30 days of operation. |
| | Aging Tolerance 1 Year | -0.1 | | +0.1 | $\times 10^{-6}$ | |

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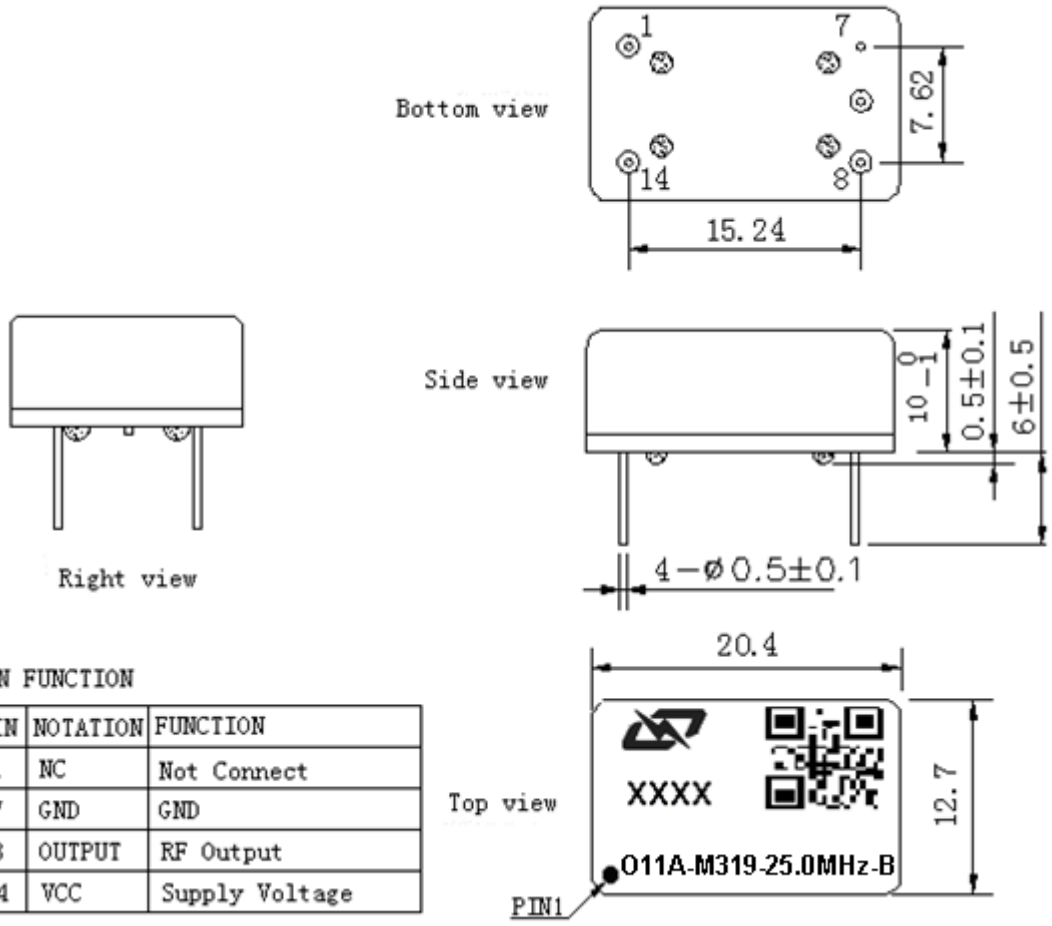
| | | | | | | |
|---|---|---|---|---|---|---|
| Power Supply | Supply Voltage | 3.14 | 3.3 | 3.47 | V | |
| | Steady Consumption | | | 250 | mA | @25℃ |
| | Warm up current | | | 600 | mA | |
| | Warm-up time | | | 5 | minute | @25℃within $\pm 0.02\times10^{-6}$of final frequency with reference after 1 hours on. |
| Phase Noise | Phase Noise | | -105 | -95 | dBc/Hz | 10Hz |
| | | | -130 | -120 | | 100Hz |
| | | | -145 | -140 | | 1KHz |
| | | | -150 | -145 | | 10KHz |
| | | | -155 | -150 | | 100KHz |
| | | | -155 | -150 | | 1MHz |
| Environmental Conditions | Operable Temperature | -40 | | +90 | ℃ | |
| | Storage Temperature | -55 | | +105 | ℃ | |
| | ESD Level | Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010. | | | | |
| | | Machine Model, class B: 200V to 400V; ANSI/ESDA/JEDEC JS-001-2010. | | | | |
| | Moisture Sensitivity Level | Not humidity sensitive. | | | | |
| | Vibration | Test Condition: 0.75mm ;acceleration:10g;10Hz～500Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X ,Y , Z), IEC 68-2-06 Test Fc. | | | | |
| | Shock | 50g; 11ms; half sine wave (3 times for each 3 directions X, Y, Z), IEC 68-2-27 Test Ea/Severity 50A. | | | | |
| Full Package Storage | Relative humidity (%) | 20%～70% | | | | |
| | Temperature (℃) | -10~35℃ | | | | |

## 2. Mechanical Structure (mm)




PIN FUNCTION

| PIN | NOTATION | FUNCTION |
|---|---|---|
| 1 | NC | Not Connect |
| 7 | GND | GND |
| 8 | OUTPUT | RF Output |
| 14 | VCC | Supply Voltage |

**Note1:** Tolerance ±0.2mm without mark

**Note2:** Referential weight 4.2g

**Note3:** NC is not connect

**Note4:** The first two xx representative: week
After two xx representative: year

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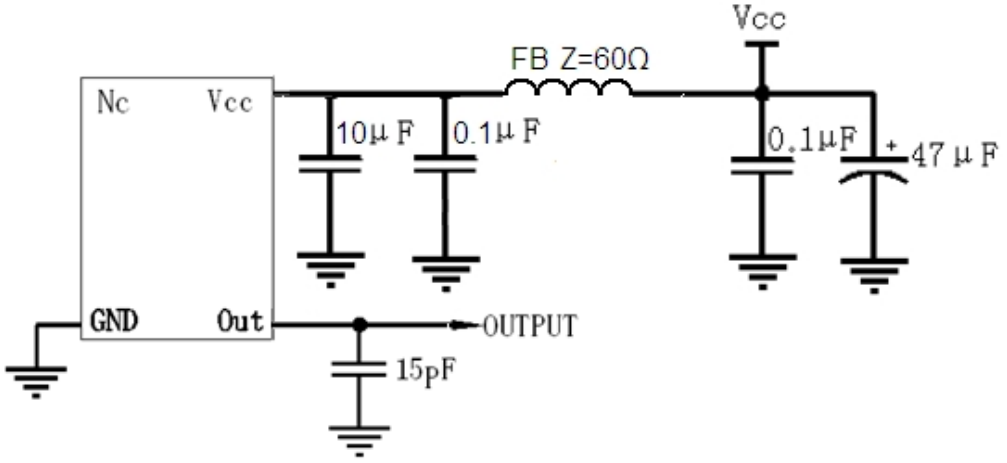
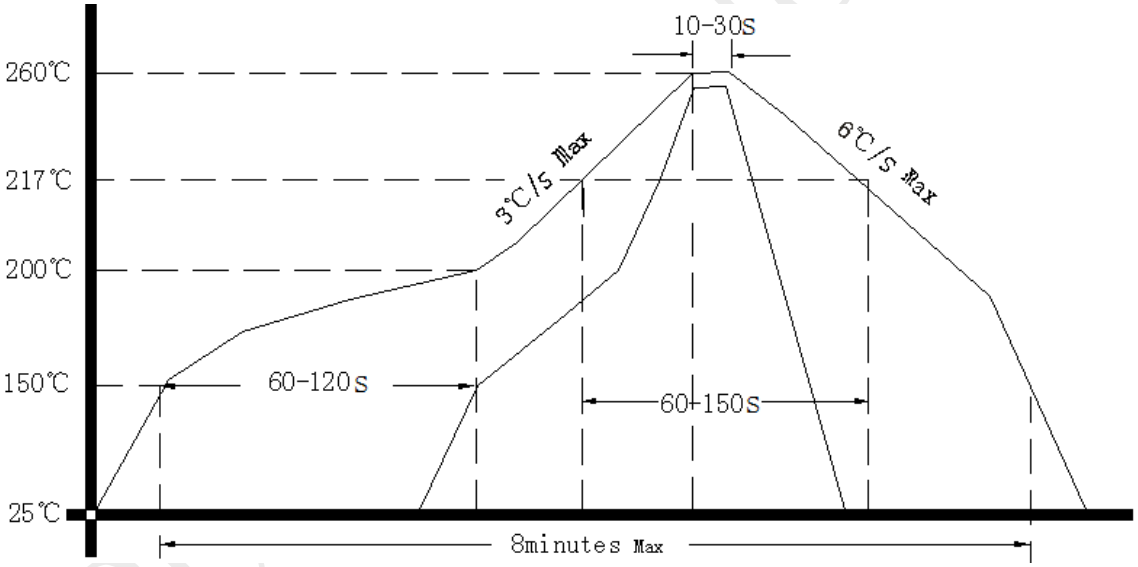
## 3. Test Circuit




## 4. Reflow Soldering Curve (RoHS)




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