

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

# DATASHEET

Standard:           M11A-L319-40.00MHz          P/N:                           MC-0464                          

| Plot             |         |          | The Label              |
|------------------|---------|----------|------------------------|
| Drew             | Audited | Approved | Stamp, please! Thanks! |
|                  |         |          |                        |
| Date: 2013.06.19 |         |          |                        |

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### Table of amendment

| Version | Revision contents | Prepared by  | Revised date |
|---------|-------------------|--------------|--------------|
| 1.0     | The first issued  | <i>Amway</i> | 2013.06.19   |
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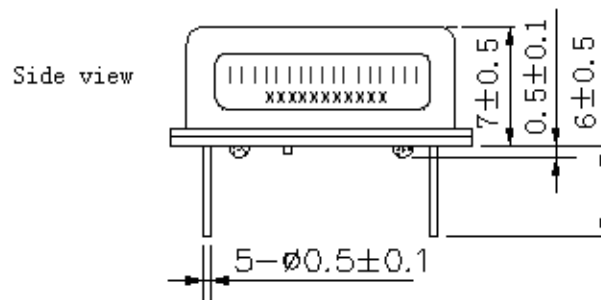
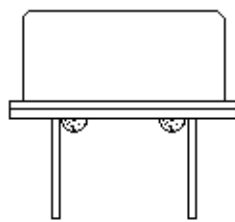
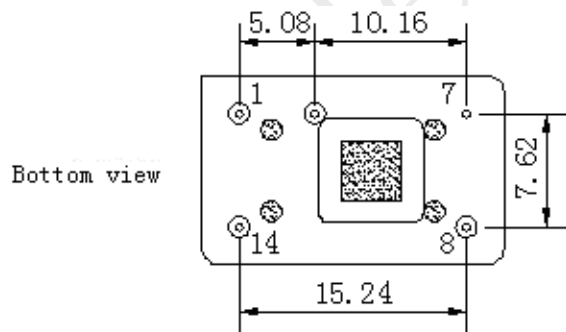
## 1. Electrical Parameters

| MODEL: M11A-L319-40.00MHz |   |            |      |       |                  |  |
|---------------------------|---|------------|------|-------|------------------|--|
| 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         | 50   | 55    | %                | @50%   |
|                           | Rise / Fall Time<br>(10%~90%)                       |            |      | 8     | ns               | @25°C  |
|                           | Load  | 15         |      |       | pF               |  |
| Frequency Stabilities     | Frequency Tolerance vs. Operating Temperature Range | -0.5       |      | +0.5  | $\times 10^{-6}$ | $T_A$ varied from -40°C to 85°C, measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, O_{load}=15\text{ pF}$ , temperature variable speed less than 2°C per minute. |
|                           | Initial Frequency Tolerance                         | -0.5       |      | +0.5  | $\times 10^{-6}$ | 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              | -0.1       |      | +0.1  | $\times 10^{-6}$ | 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                        | -0.1       |      | +0.1  | $\times 10^{-6}$ | 5% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}, V_{cc}=3.3V, O_{Load}=15\text{ pF}$ .  |
|                           | Aging Tolerance Per Day                             | -0.02      |      | +0.02 | $\times 10^{-6}$ | $T_A=25^\circ\text{C}, V_{cc}=3.3V$ , and after 1h of operation.   |
|                           | Aging Tolerance 1 Year                              | -1         |      | +1    | $\times 10^{-6}$ |  |
| Power Supply              | Current Consumption                                 |            | 25   |       | mA               | @25°C, $V_{cc}=3.3V, O_{load}=15\text{ pF}$ .  |
|                           | Supply Voltage                                      | 3.13       | 3.3  | 3.47  | V                |  |



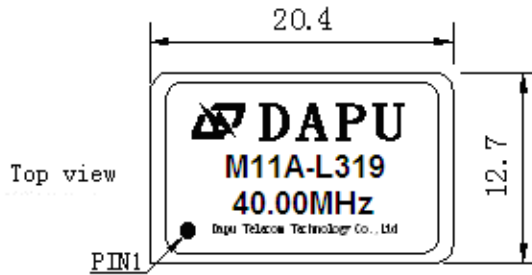
|                          |  |  |      |      |        |      |
|--------------------------|--|--|------|------|--------|------|
| Phase Noise              | Phase Noise  |  | -130 |      | dBc/Hz | 1KHz |
| Environmental Conditions | Operable Temperature   | -40  |      | +85  | °C     |      |
|                          | 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; ANSI/ESDA/JEDEC JS-001-2010.   |      |      |        |      |
|                          | Moisture Sensitivity Level   | Not humidity sensitive.  |      |      |        |      |
|                          | 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)**



**PIN FUNCTION**

| PIN | FUNCTION |
|-----|----------|
| 1   | NC       |
| 7   | GND      |
| 8   | OUTPUT   |
| 14  | VCC      |



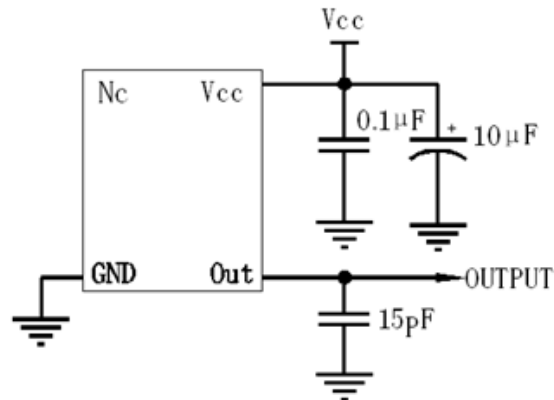
**Note1:** Tolerance  $\pm 0.2\text{mm}$  without mark

**Note2:** Referential Weight 4.2g

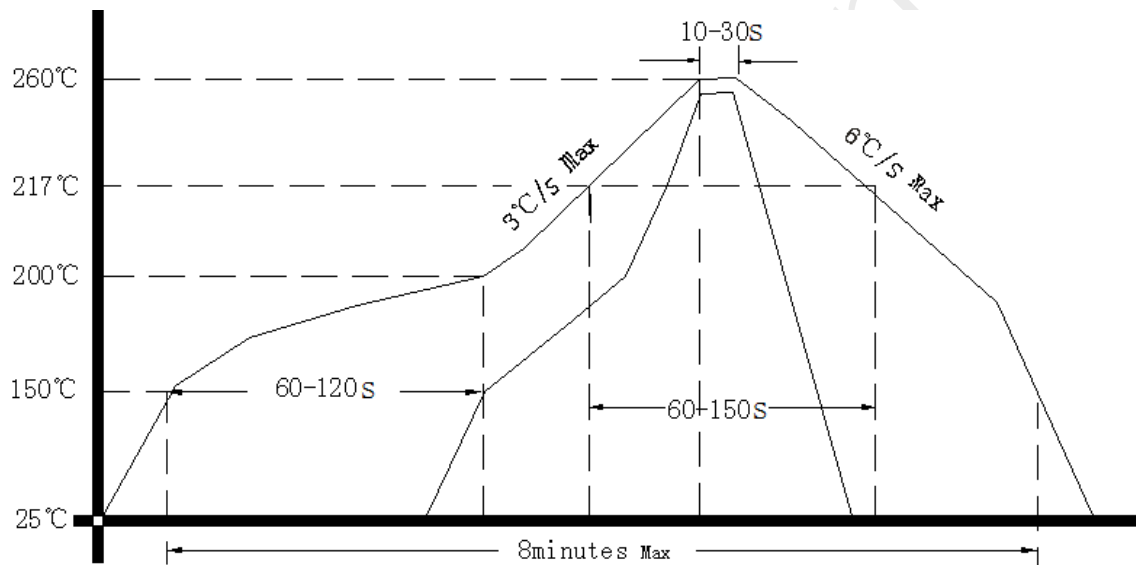
**Note3:** NC is not connect



### 3. Test circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package: PVC Tube,10pcs (mm)

