

Travelling Merchant: _____

DATASHEET

Standard: **O23C-E447-100.00MHz**

P/N: _____

| Plot | | | The Label |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2016.10.28 | | | |

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Table of amendment

| Version | Revision contents | Prepared by | Revised date |
|---------|---|--------------|--------------|
| 1.0 | The first issued | <i>Amway</i> | 2011.07.12 |
| 1.1 | “Mechanical Structure” and “Test Circuit” changed | <i>Amway</i> | 2016.10.28 |
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1、Electrical Parameters

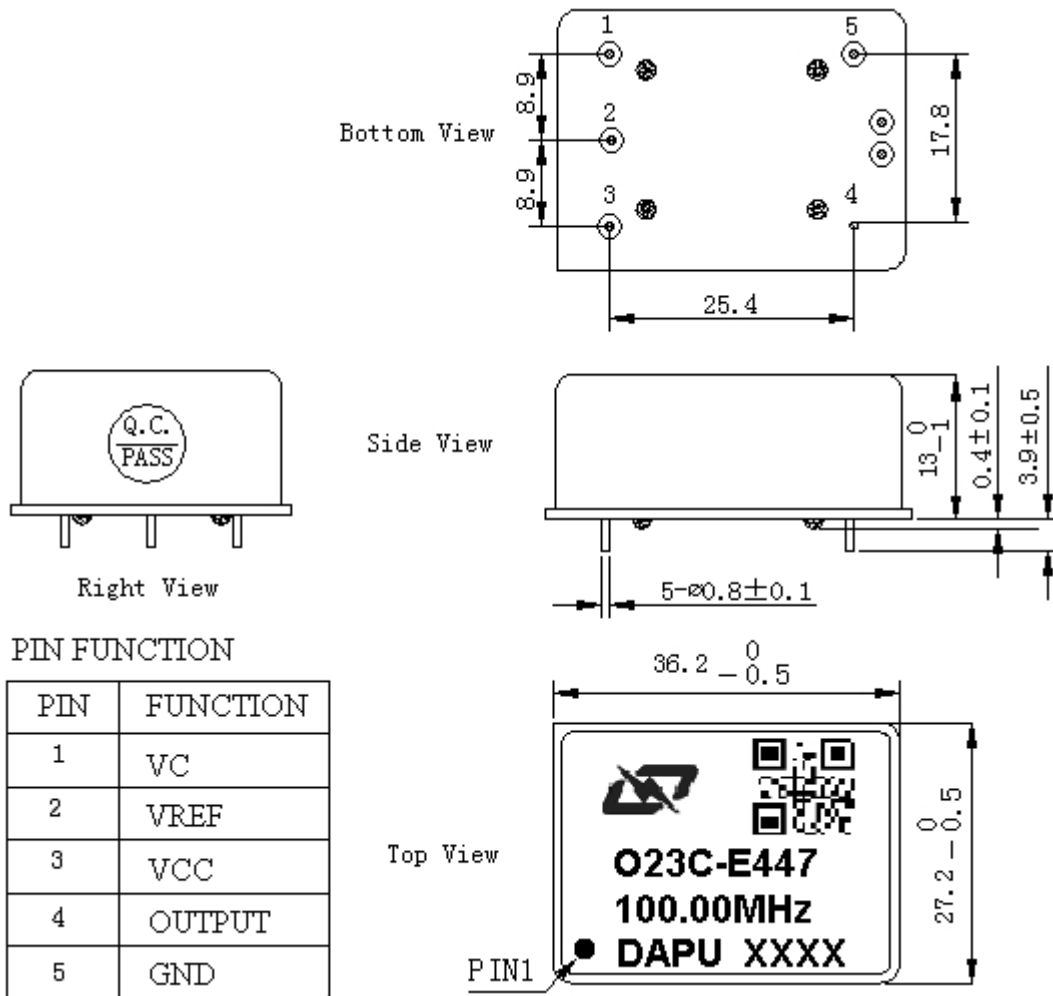
| MODEL: O23C-E447-100.00MHz | | | | | | |
|----------------------------|---|------------|------|-------|------------------|---|
| Item | Description | Parameters | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | 100.00 | | | MHz | |
| | Output Waveform | Sine wave | | | | |
| | Level | 6 | | 10 | dBm | |
| | Load | 50 | | | Ω | |
| | Harmonics Suppression | | | -35 | dBc | |
| | Spurious Suppression | | | -70 | dBc | |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | -0.01 | | +0.01 | $\times 10^{-6}$ | T_A varied from -20°C to 70°C , measurement referenced to frequency observed with $T_A = 25^{\circ}\text{C}$, $V_{cc}=12.0\text{V}$, $V_c=2.5\text{V}$, $O_{load}=50\Omega$, temperature rise speed less than 2°C per minute. |
| | Initial Frequency Tolerance | -0.2 | | +0.2 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{cc}=12.0\text{V}$, $V_c=2.5\text{V}$ 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 $T_A=25^{\circ}\text{C}$, V_{cc} varied from 11.4V to 12.6V, $V_c = 2.5\text{V}$, $O_{load}=50\Omega$, |
| | Frequency Tolerance vs. Load | -5 | | +5 | $\times 10^{-9}$ | 5% load change measurement referenced to frequency observed with $T_A= 25^{\circ}\text{C}$, $V_{cc}= 12.0\text{V}$, $V_c=2.5\text{V}$ and $O_{Load}=50\Omega$. |
| | Short-Term Stability: Allan Variance | | | 0.01 | $\times 10^{-9}$ | Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C ; 1s , using PN9000 equipment. |
| | Aging Tolerance Per Day | -1 | | +1 | $\times 10^{-9}$ | V_{cc} , V_c , T_A constant measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$, $V_{cc}= 12.0\text{V}$, $V_c = 2.5\text{V}$, and after 30 days of operation. |
| | Aging Tolerance 1 Year | -0.1 | | +0.1 | $\times 10^{-6}$ | |
| Power Supply | Supply Voltage | 11.4 | 12.0 | 12.6 | V | |
| | Current Consumption | | | 200 | mA | @ 25°C |
| | Current Consumption during warm up | | | 500 | mA | |



| | | | | | | |
|---------------------------------|---|---|------|------|------------------|--|
| Voltage Control Characteristics | Frequency Tuning Range | | | -0.7 | $\times 10^{-6}$ | $V_c=0$ V. measurement referenced to $V_c=2.5V$ |
| | | -0.2 | | +0.2 | $\times 10^{-6}$ | $V_c=2.5V$. measurement referenced to exactly 100.00MHz |
| | | +0.7 | | | $\times 10^{-6}$ | $V_c=5.0V$. measurement referenced to $V_c=2.5V$ |
| | Linearity | | | 10 | % | |
| | Slope | Positive | | | | |
| | Input Impedance | 100 | | | | K Ω |
| Phase Noise | Phase Noise | | -80 | | dBc/Hz | 10Hz |
| | | | -120 | | | 100Hz |
| | | | -150 | | | 1KHz |
| | | | -152 | | | 10KHz |
| | | | -155 | | | 100KHz |
| Environmental Conditions | Operable Temperature | -20 | | +70 | $^{\circ}C$ | |
| | Storage Temperature | -45 | | +85 | $^{\circ}C$ | |
| | 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~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 ($^{\circ}C$) | -10~35 $^{\circ}C$ | | | | |



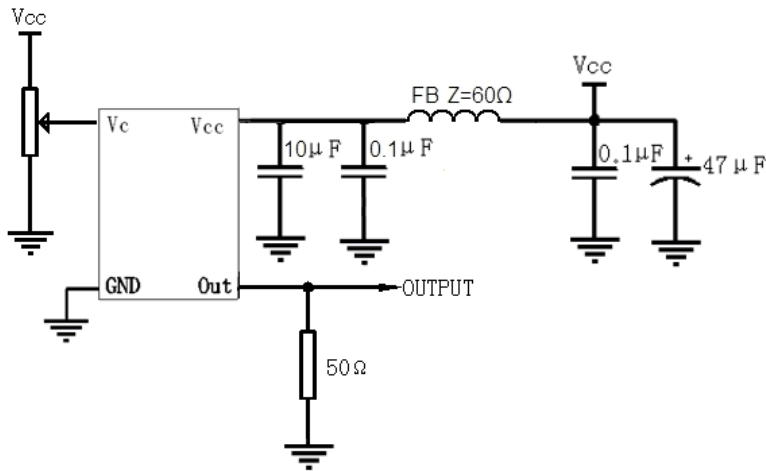
2、 Mechanical Structure(mm)



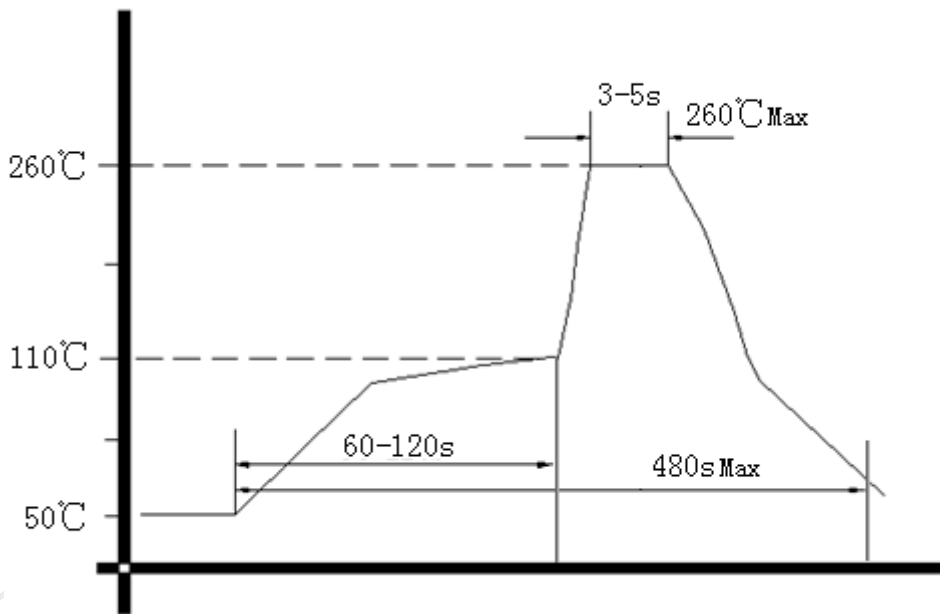
- Note1:** Tolerance ±0.2mm without mark
- Note2:** Referential Weight 22.6g
- Note3:** NC is not connect
- Note4:** The first two xx representative: week
After two xx representative: year



3、 Test Circuit



4、 Wave Soldering Curve (RoHS)



5、 Package: PVC Tube,5pcs (mm)

