

Customer Code : _____

DATASHEET

DAPU P/N : **O23B-L425-52.00MHz** _____

Customer P/N: _____

| DAPU | | | Customer Approval |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2018.05.14 | | | |

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Table of amendment

| Version | Revision contents | Prepared by | Revised date |
|---------|------------------------------------|--------------|--------------|
| 1.0 | The first issued | <i>Amway</i> | 2018.04.25 |
| 1.1 | The “Mechanical Structure” changed | <i>Amway</i> | 2018.05.14 |
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1. Electrical Parameters

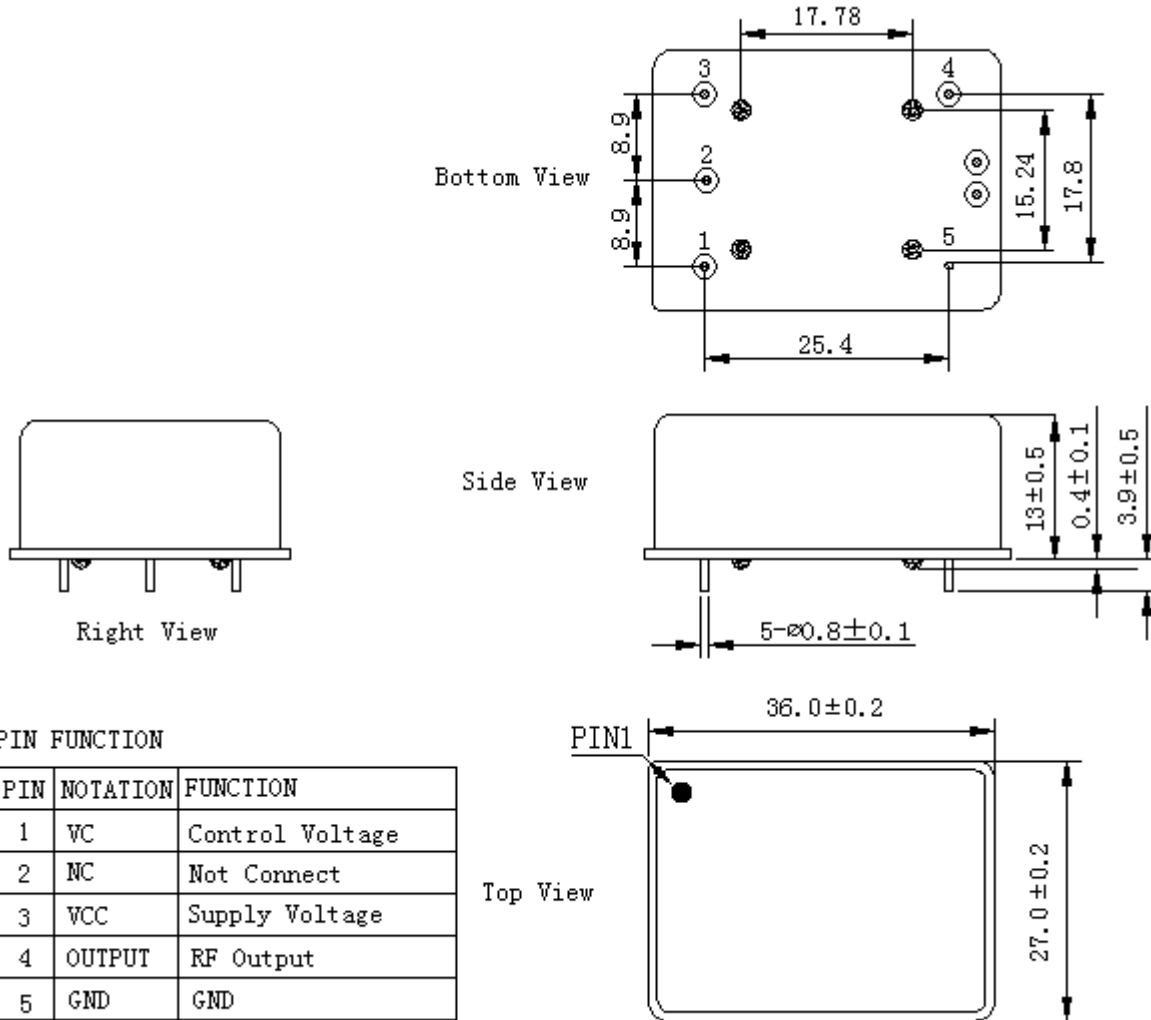
| MODEL: O23B-L425-52.00MHz | | | | | | | |
|---------------------------|---|------------|------|-------|------------------|---|--|
| Item | Description | Parameters | | | Unit | Test Condition | |
| | | Min. | Typ. | Max. | | | |
| Output | Frequency | 52.00 | | | MHz | | |
| | Output Waveform | Sine wave | | | | | |
| | Level | 3 | | | dBm | | |
| | Spurious Suppression | | | -75 | dBc | | |
| | Harmonics Suppression | | | -30 | dBc | | |
| | Load | 50 | | | Ω | | |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | -5 | | +5 | $\times 10^{-9}$ | T_A varied from -40°C to 70°C , measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, $V_{cc}=5.0\text{V}$, $V_c=2.5$, $O_{load}=50\Omega$ temperature variable speed less than 2°C per minute. | |
| | Initial Frequency Tolerance | -0.1 | | +0.1 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{cc}=5.0\text{V}$, $V_c=2.5$ and after 30 minutes of operation, within 30 days after ex-works. | |
| | Frequency Tolerance vs. Supply Voltage | -1.0 | | +1.0 | $\times 10^{-9}$ | measurement referenced to frequency observed $T_A=25^\circ\text{C}$, $V_c=2.5$, V_{cc} varied from 4.75 V to 5.25V, and $O_{Load}=50\Omega$. | |
| | Frequency Tolerance vs. Load | -1.0 | | +1.0 | $\times 10^{-9}$ | 5% load change measurement referenced to frequency observed with $T_A=25^\circ\text{C}$, $V_{cc}=5.0\text{V}$, $V_c=2.5$ 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. |
| | | | | | 0.05 | $\times 10^{-9}$ | Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C ; 100s, using PN9000 equipment. |
| | Retrace | -0.01 | | +0.01 | $\times 10^{-6}$ | @ 25°C , frequency variation measured after 24 hours power off and 30 minutes power on. | |
| | Aging Tolerance Per Day | -0.5 | | +0.5 | $\times 10^{-9}$ | V_{cc}, T_A, V_C constant measurement referenced to frequency observed with | |
| | Aging Tolerance 1 Year | -0.05 | | +0.05 | $\times 10^{-6}$ | $T_A=25^\circ\text{C}$, $V_{cc}=5.0\text{V}$, $V_c=2.5$ and after 30 days of operation. | |
| Power Supply | Supply Voltage | 4.75 | 5.0 | 5.25 | V | | |
| | Steady Consumption | | | 300 | mA | @ 25°C | |



| | | | | | | |
|---------------------------------|----------------------------|---|------|------|------------------|---|
| | Warm up current | | | 800 | mA | |
| | Warm-Up Time | | | 6 | minutes | @25°C within $\pm 0.01 \times 10^{-6}$ of final frequency with reference after 1 hour on. |
| Voltage Control Characteristics | Frequency Tuning Range | -1.0 | | -0.5 | $\times 10^{-6}$ | $V_c=0V$. measurement referenced to $V_c=2.5V$. |
| | | -0.1 | | +0.1 | $\times 10^{-6}$ | $V_c=2.5V$. measurement referenced to exactly 52.00MHz. |
| | | +0.5 | | +1.0 | $\times 10^{-6}$ | $V_c=5.0V$. measurement referenced to $V_c=2.5V$. |
| | Linearity | | | 10 | % | |
| | Slope | Positive | | | | |
| | Input Impedance | 100 | | | | K Ω |
| Phase Noise | Phase Noise | | -90 | -80 | dBc/Hz | 1Hz |
| | | | -115 | -105 | | 10Hz |
| | | | -135 | -125 | | 100Hz |
| | | | -142 | -137 | | 1KHz |
| | | | -150 | -145 | | 10KHz |
| | | | -155 | -150 | | 100KHz |
| 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~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 (°C) | -10~35°C | | | | |



2. Mechanical Structure (mm)



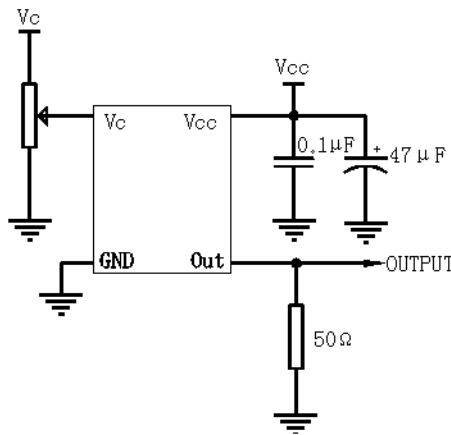
Note1: Tolerance ±0.2mm without mark

Note2: Referential Weight 20.7g

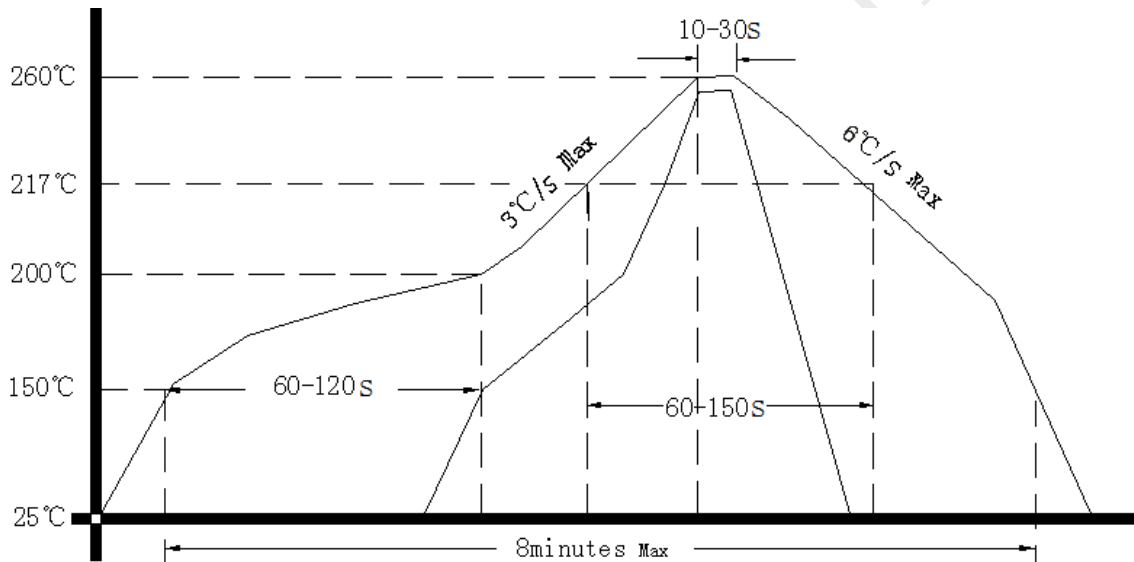
Note3: NC is not connect



3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package (mm)

