

Customer Code : _____

DATASHEET

DAPU P/N: **O22S-P319-10.00MHz-A**

Customer P/N: _____

| DAPU | | | Customer Approval |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2020.10.14 | | | |

Guangdong Dapu Telecom Technology Co.,Ltd

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

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



1. Electrical Parameters

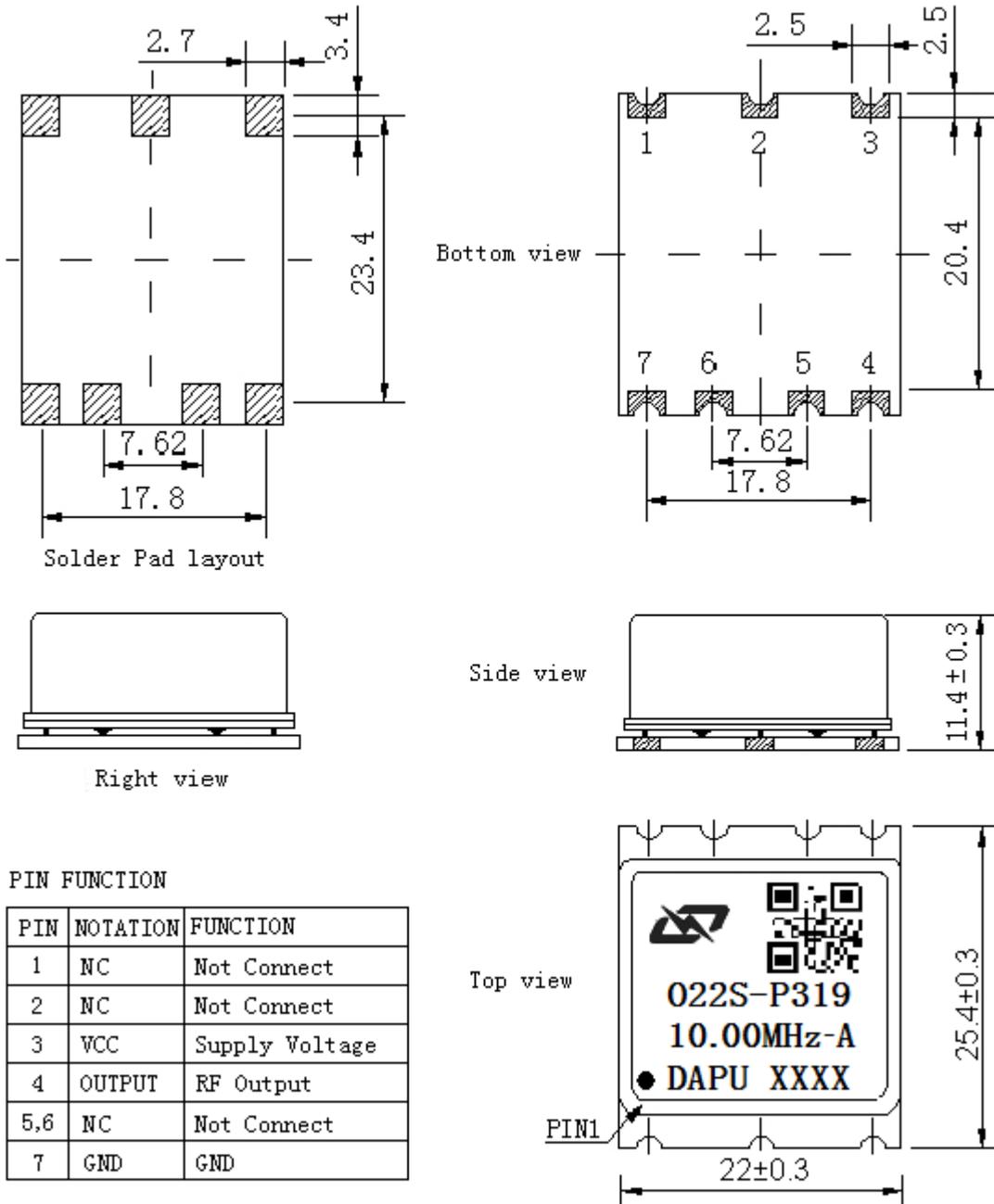
| MODEL: O22S-P319-10.00MHz-A | | | | | | |
|-----------------------------|---|------------|------|-------|------------------|--|
| Item | Description | Parameters | | | Unit | Test Condition |
| | | Min. | Typ. | Max. | | |
| Output | Frequency | 10.00 | | | MHz | |
| | Output Waveform | HCMOS | | | | |
| | Output Low Voltage | | | 0.4 | 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 | |
| | Load | 15 | | | pF | |
| | Start-up Time | | | 0.5 | s | |
| | Spurious | | | -70 | dBc | |
| | Overshoot | | | 10 | % | $O_{load}=15pF$ |
| Frequency Stabilities | Frequency Tolerance vs. Operating Temperature Range | | | +1 | $\times 10^{-9}$ | T_A varied from $-40^{\circ}C$ to $85^{\circ}C$, $V_{cc}=3.3V$, $O_{load}=15pF$, temperature variable speed less than $2^{\circ}C$ per minute. calculation formula : $(f_{max}-f_{min})/f_0, f_0=10M$. |
| | Initial Frequency Tolerance | -0.5 | | +0.5 | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A=25^{\circ}C$, $V_{cc}=3.3V$, and after 15 minutes of operation, within 30 days after ex-works. |
| | Frequency Tolerance vs. Supply Voltage | -0.5 | | +0.5 | $\times 10^{-9}$ | measurement referenced to frequency observed $T_A=25^{\circ}C$, V_{cc} varied from 3.13V to 3.47V, and $O_{Load}=15pF$. |
| | Frequency Tolerance vs. Load | -0.5 | | +0.5 | $\times 10^{-9}$ | 10% load change measurement referenced to frequency observed with $T_A=25^{\circ}C$, $V_{cc}=3.3V$, and $O_{Load}=15pF$. |
| | 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 $25^{\circ}C$; 1s. |
| | Aging Tolerance Per Day | -0.3 | | +0.3 | $\times 10^{-9}$ | V_{cc}, V_c, T_A constant measurement referenced to frequency observed with $T_A=25^{\circ}C$, $V_{cc}=3.3V$, and after 30 days of operation. |
| | Aging Tolerance 1 Year | -0.03 | | +0.03 | $\times 10^{-6}$ | |
| | Total Free-run Accuracy | -1.5 | | +1.5 | $\times 10^{-6}$ | Over lifetime(Telcordia GR-1244 requirement: $\pm 4.6ppm$) |



| | | | | | | |
|--------------------------|---|--|------|------|-------------------------|---|
| Power Supply | Supply Voltage | 3.13 | 3.3 | 3.47 | V | |
| | Steady Consumption | | | 400 | mA | @25°C |
| | Warm up current | | | 1000 | mA | |
| | Warm-Up Time | | | 5 | minutes | @25°C within $\pm 0.1 \times 10^{-6}$ of final Frequency with reference after 24 hour on. |
| Phase Noise | Phase Noise @25°C | | -95 | | dBc/Hz | 1Hz |
| | | | -125 | | | 10Hz |
| | | | -140 | | | 100Hz |
| | | | -150 | | | 1KHz |
| | | | -150 | | | 10KHz |
| Jitter | | | 1 | ps | RMS Jitter (12KHz-5MHz) | |
| Environmental Conditions | Operable Temperature | -40 | | +85 | °C | |
| | Storage Temperature | -55 | | +105 | °C | |
| | Operable Environmental Conditions | 5 | | 85 | %RH | |
| | 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;5Hz~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 $\pm 0.20\text{mm}$ without mark

Note2: The first two xx representative: week
After two xx representative: year

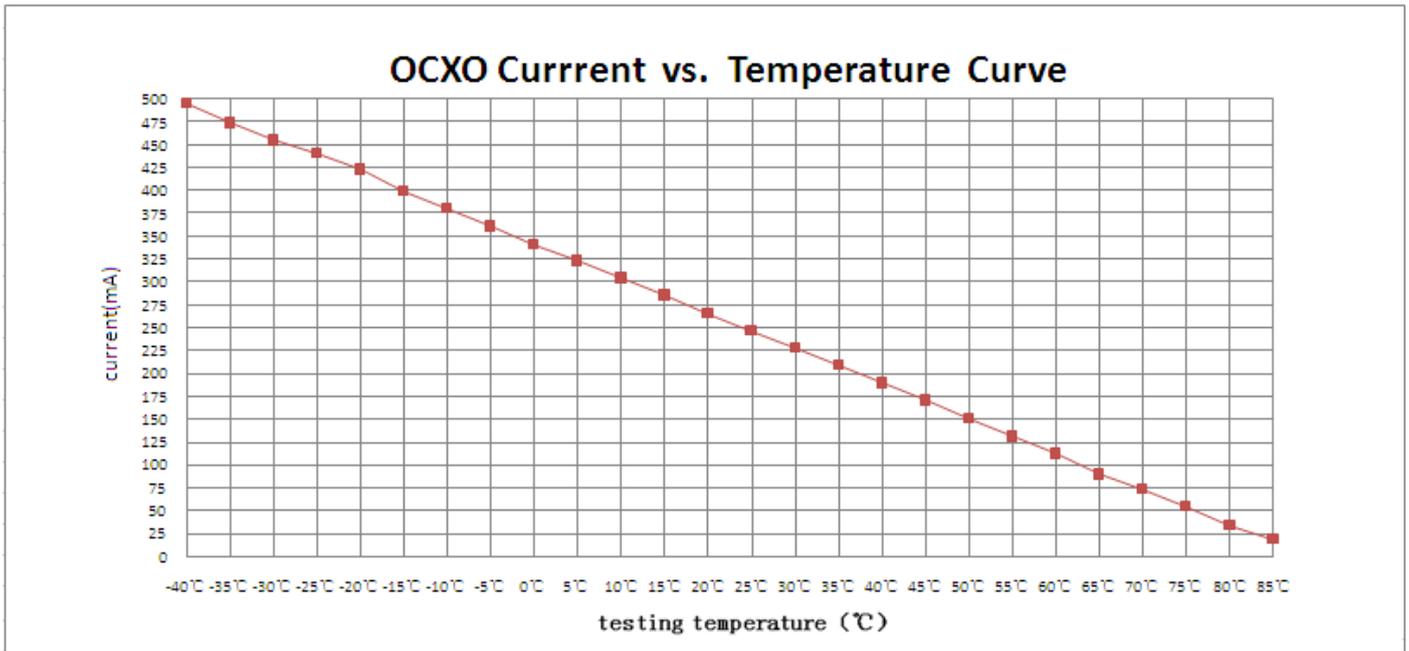
Note3: Referential weight 7.8g

Note4: NC is not connect

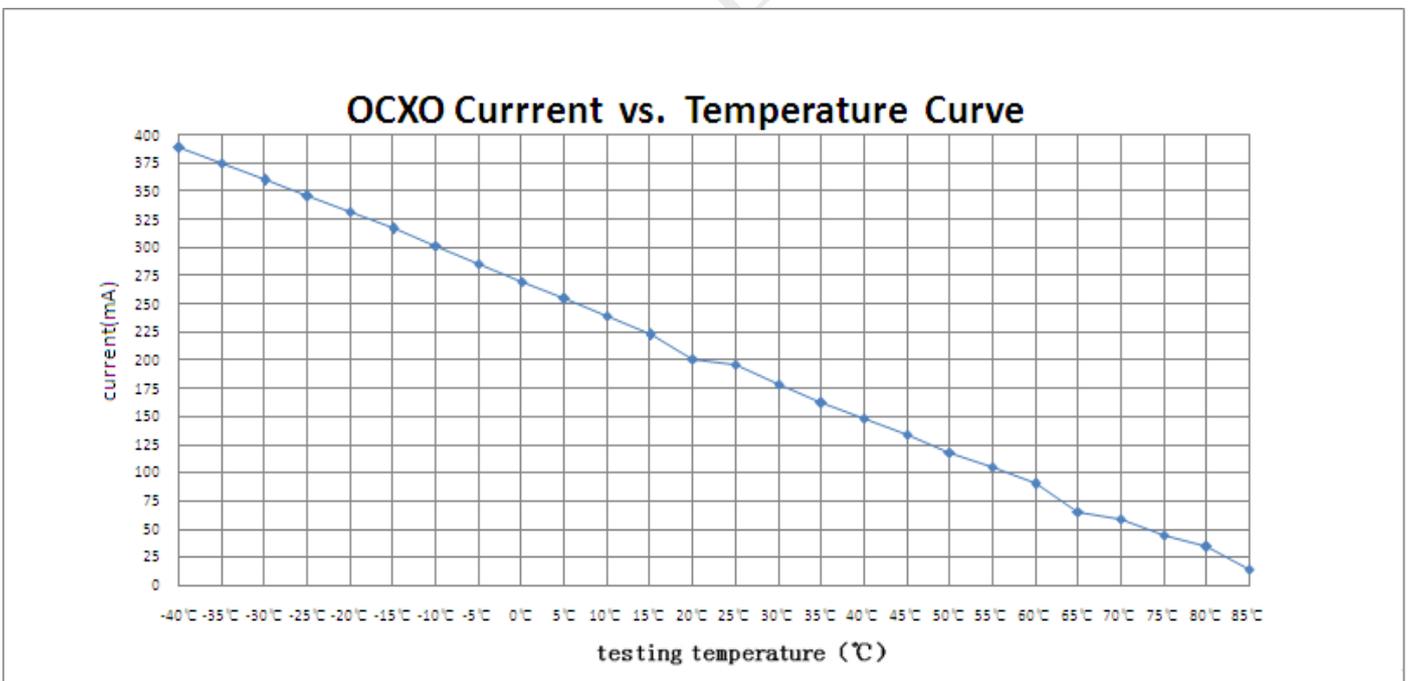


3. Current vs. Temperature

Airflow=1.5m/s

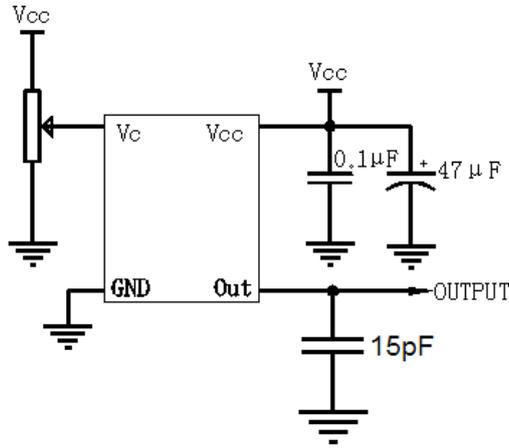


Airflow=0m/s

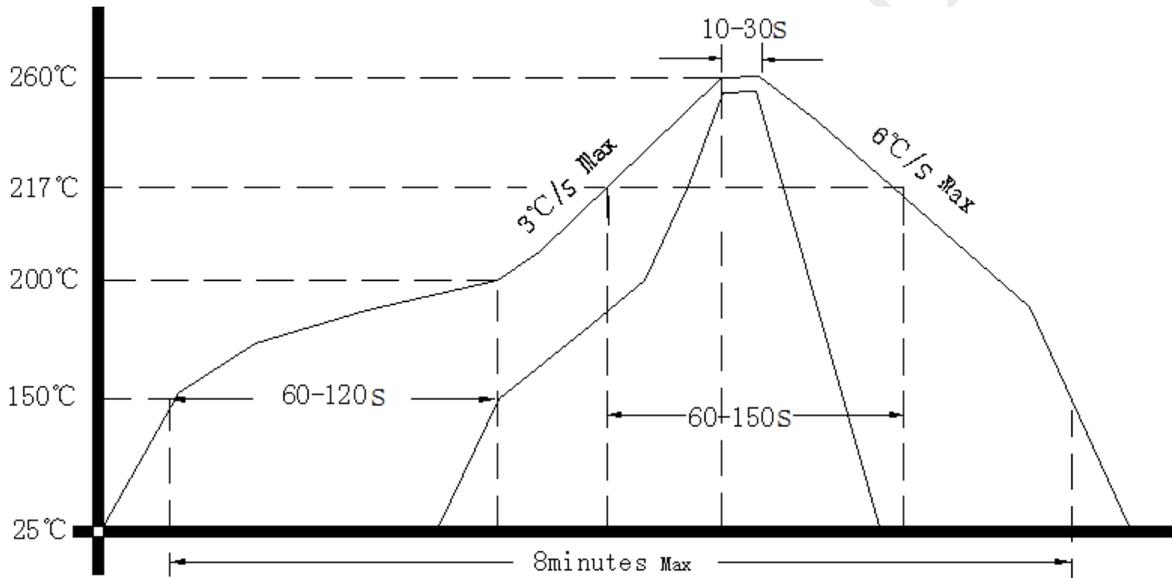




4. Test Circuit



5. Reflow Soldering Curve (RoHS)



6. Package: Tape & Reel (mm)

