

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

# DATASHEET

Standard:           **T21-0803-26.00MHz**          

P/N: \_\_\_\_\_

| Plot             |         |          | The Label              |
|------------------|---------|----------|------------------------|
| Drew             | Audited | Approved | Stamp, please! Thanks! |
|                  |         |          |                        |
| Date: 2024.07.18 |         |          |                        |

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### Table of amendment

| Version | Revision contents | Prepared by  | Revised date |
|---------|-------------------|--------------|--------------|
| 1.0     | The first issued  | <i>Amway</i> | 2024.07.18   |
|         |                   |              |              |
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## 1. Electrical Parameters

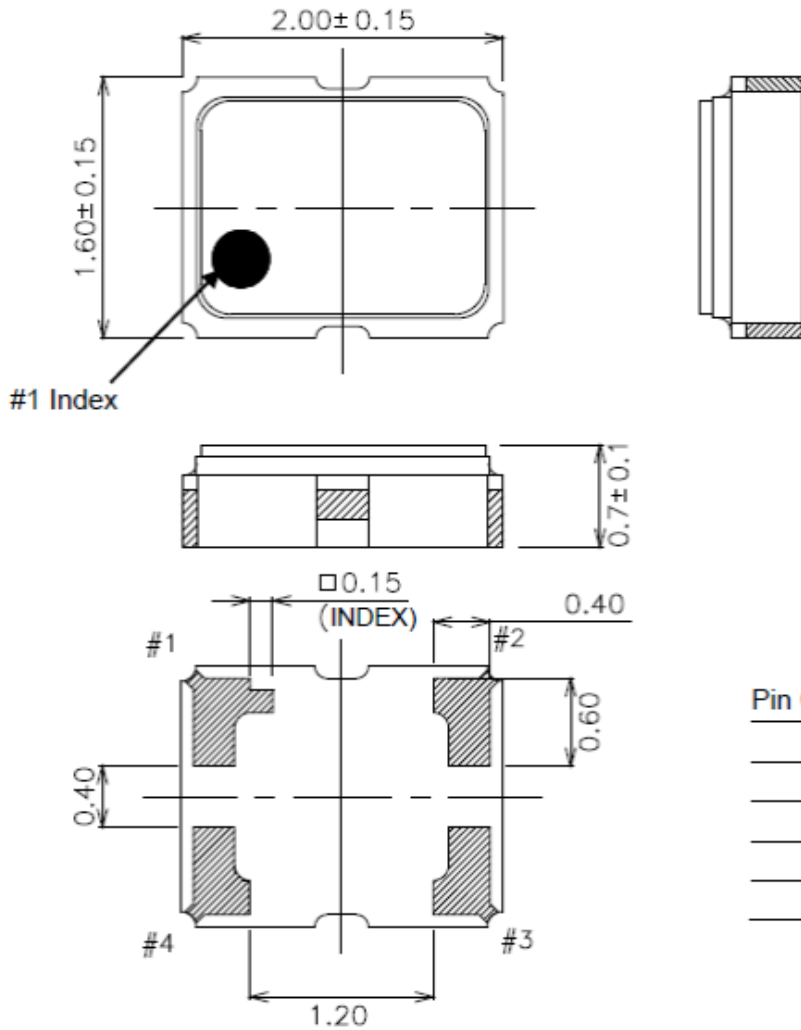
| MODEL: T21-0803-26.00MHz |  |                   |      |      |                        |   |
|--------------------------|--|-------------------|------|------|------------------------|---|
| Item                     | Description                            | Parameters        |      |      | Unit                   | Test Condition  |
|                          |  | Min.              | Typ. | Max. |                        |   |
| Output                   | Frequency                              | 26.00             |      |      | MHz                    |   |
|                          | Output Waveform                        | Clipped Sine Wave |      |      |                        |   |
|                          | V <sub>p-p</sub>                       | 0.8               |      |      | V                      |   |
|                          | Load                                   | 10KΩ//10pF        |      |      |                        |   |
| Frequency Stabilities    | Initial accuracy                       | -1                |      | +1   | × 10 <sup>-6</sup>     |   |
|                          | vs. Temperature Range                  | -2.5              |      | +2.5 | × 10 <sup>-6</sup>     | T <sub>A</sub> varied from -40°C to 95°C, measurement referenced to frequency observed with f <sub>ref</sub> =(f <sub>max</sub> +f <sub>min</sub> )/2, V <sub>cc</sub> =1.8V, V <sub>c</sub> =0.9V, O <sub>load</sub> =10KΩ//10pF, temperature variable speed less than 2°C per minute. |
|                          | Frequency Tolerance vs. Supply Voltage | -0.2              |      | +0.2 | × 10 <sup>-6</sup>     | measurement referenced to frequency observed TA=25°C, V <sub>cc</sub> varied from 1.70V to 1.90V, and O <sub>Load</sub> =10KΩ//10pF   |
|                          | Frequency Tolerance vs. Load           | -0.2              |      | +0.2 | × 10 <sup>-6</sup>     | 5% load change measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =1.8V, and O <sub>Load</sub> =10KΩ//10pF .   |
|                          | DIP                                    | -0.2              |      | +0.2 | × 10 <sup>-6</sup> /°C |   |
|                          | Aging Tolerance 1 Year                 | -0.8              |      | +0.8 | × 10 <sup>-6</sup>     | T <sub>A</sub> =25°C, V <sub>cc</sub> =1.8V, and after 1h of operation.   |
| Power Supply             | Operating Current                      |                   |      | 2    | mA                     | @25°C, V <sub>cc</sub> =1.8V  |
|                          | Supply Voltage                         | 1.70              | 1.80 | 1.90 | V                      |   |
| Phase Noise              | Phase Noise@25°C                       |                   | -88  | -83  | dBc/Hz                 | 10Hz  |
|                          |  |                   | -113 | -108 |                        | 100Hz   |
|                          |  |                   | -135 | -130 |                        | 1KHz  |
|                          |  |                   | -151 | -146 |                        | 10KHz   |
|                          |  |                   | -154 | -149 |                        | 100KHz  |
|                          |  |                   | -154 | -149 |                        | 1MHz  |



|                                 |   |  |  |      |                  |   |
|---------------------------------|---|--|--|------|------------------|---|
| Voltage Control Characteristics | Frequency Tuning Range  | -12  |  | -8   | $\times 10^{-6}$ | $V_c=0.3V$ . measurement referenced to $V_c=0.9V$       |
|                                 |   | -1   |  | +1   | $\times 10^{-6}$ | $V_c=0.9V$ . measurement referenced to exactly 26.00MHz |
|                                 |   | +8   |  | +12  | $\times 10^{-6}$ | $V_c=1.5V$ . measurement referenced to $V_c=0.9V$       |
|                                 | Linearity   |  |  | 10   | %                |   |
|                                 | Slope   | Positive   |  |      |                  |   |
|                                 | Input Impedance   | 500  |  |      | K $\Omega$       |   |
| Environmental Conditions        | Operable Temperature  | -40  |  | +95  | $^{\circ}C$      |   |
|                                 | Storage Temperature   | -55  |  | +125 | $^{\circ}C$      |   |
|                                 | 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 2.   |  |      |                  |   |
|                                 | 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. |  |  |      |                  |   |
| Full Package Storage            | Relative humidity (%)   | 20% ~70%   |  |      |                  |   |
|                                 | Temperature ( $^{\circ}C$ )   | -10~35 $^{\circ}C$   |  |      |                  |   |



## 2. Mechanical Structure(mm)



Pin Connections

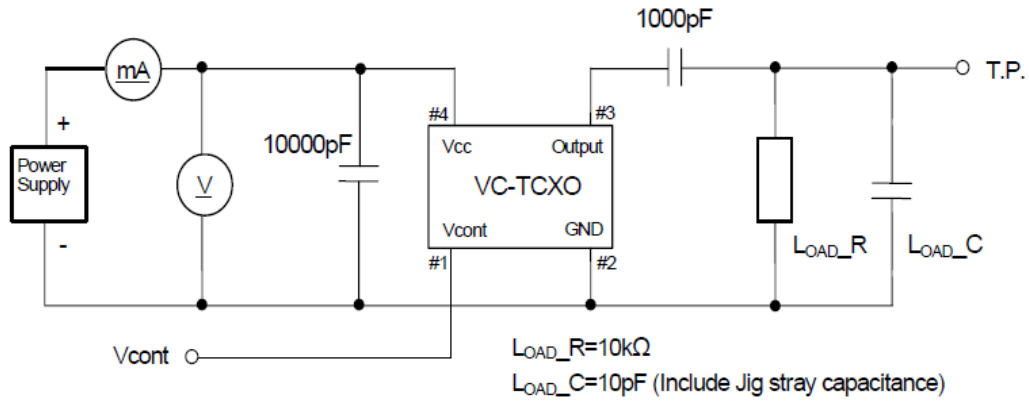
| Pin No. | Connection      |
|---------|-----------------|
| #1      | Vcont           |
| #2      | GND             |
| #3      | Output          |
| #4      | V <sub>CC</sub> |

**Note1:** Tolerance  $\pm 0.2$ mm without mark

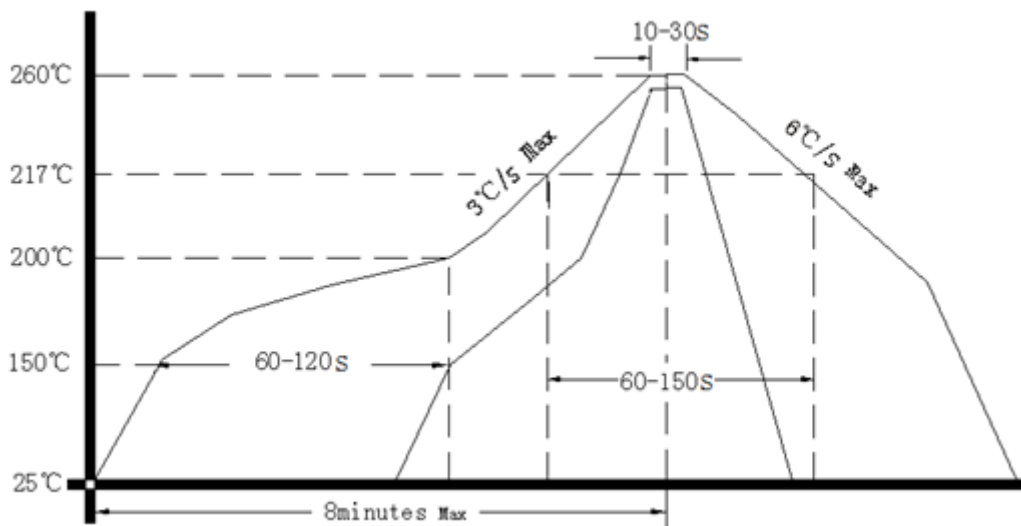
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### 3. Test Circuit



### 4. Reflow Soldering Curve (RoHS)



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

