

Customer Code: \_\_\_\_\_

# DATASHEET

DAPU P/N: DPZ2233M333018A0

| DAPU             |         |          | Customer Approval      |
|------------------|---------|----------|------------------------|
| Drew             | Audited | Approved | Stamp, please! Thanks! |
| Jack             | David   | William  |                        |
| Date: 2022.06.20 |         |          |                        |

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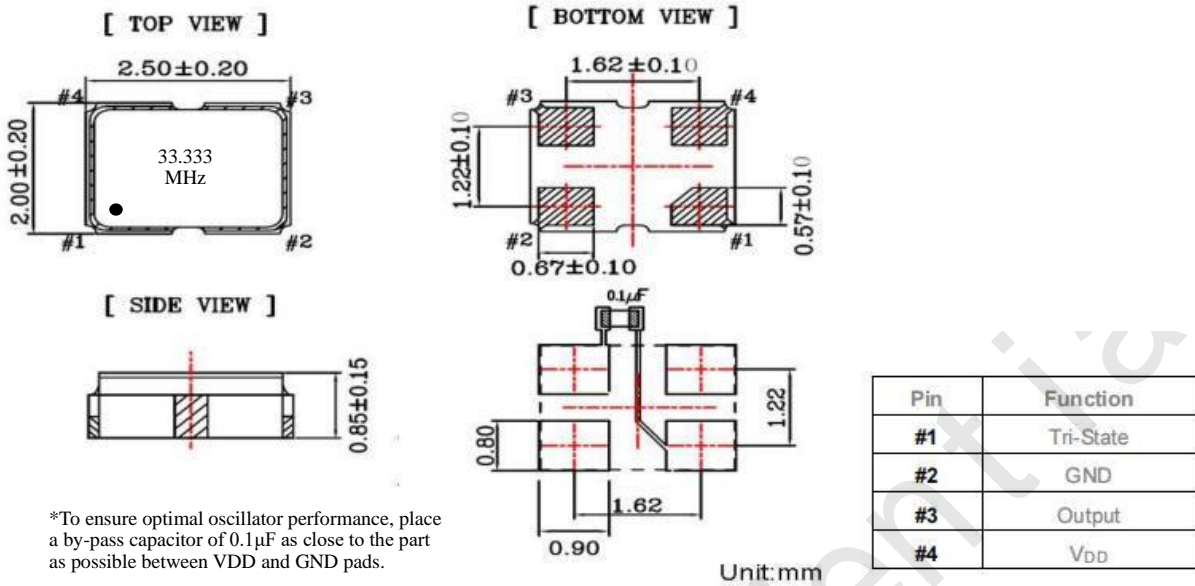


## 1、 Electrical Parameters

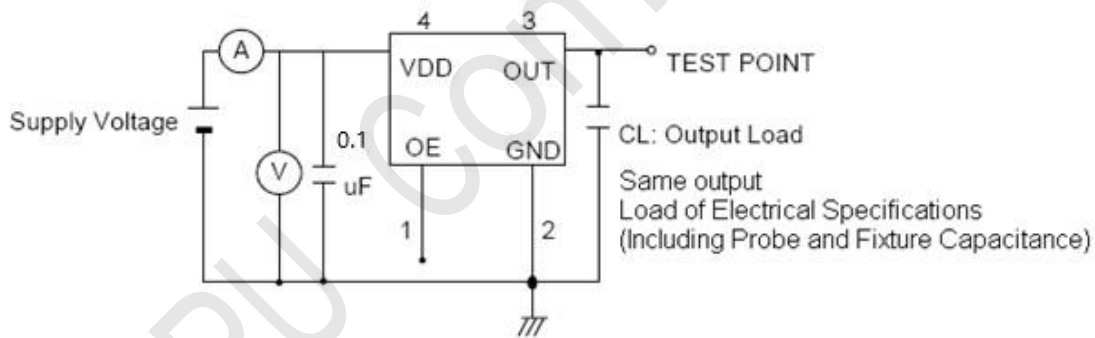
| MODEL: DPZ2233M333018A0 |                          |                                 |                  |      |       |                  |  |
|-------------------------|--------------------------|---------------------------------|------------------|------|-------|------------------|--|
| No.                     | Parameters               | SYM.                            | Electrical Spec. |      |       |                  | Notes  |
|                         |                          |                                 | Min.             | Typ. | Max.  | Units            |  |
| 1                       | Nominal Frequency        | FL                              | 33.333           |      |       | MHz              |  |
| 2                       | Oscillation Mode         | -                               | Fundamental      |      |       |                  |  |
| 3                       | Frequency Stability      | -                               | -25              |      | + 25  | $\times 10^{-6}$ | Inclusive of frequency tolerance at 25°C, 1st year aging at 25°C, and variations over operating temperature, supply voltage, and load. |
| 4                       | Operating Temperature    | Topr                            | -40              | ~    | + 85  | °C               |  |
| 5                       | Storage Temperature      | Tstg                            | -55              | ~    | + 125 | °C               |  |
| 6                       | Supply Voltage           | V <sub>DD</sub>                 | 1.62             | 1.8  | 1.98  | V                |  |
| 7                       | Input Current            | I <sub>cc</sub>                 |                  |      | 10    | mA               |  |
| 8                       | Output waveform          | -                               | CMOS             |      |       |                  |  |
| 9                       | Output Load              | CL                              | 15               |      |       | pF               |  |
| 10                      | Output Voltage High      | V <sub>OH</sub>                 | 90%              |      |       | V <sub>DD</sub>  |  |
| 11                      | Output Voltage Low       | V <sub>OL</sub>                 |                  |      | 10%   | V <sub>DD</sub>  |  |
| 12                      | Rise/Fall Time           | T <sub>r</sub> 、 T <sub>f</sub> |                  |      | 5     | ns               |  |
| 13                      | Aging                    | -                               | -3               |      | + 3   | $\times 10^{-6}$ | First Year at 25°C   |
| 14                      | Tri-State Output Enable  | -                               | 70%              |      |       | V <sub>DD</sub>  | Pin 1, OE  |
| 15                      | Tri-State Output Disable | -                               |                  |      | 30%   | V <sub>DD</sub>  | Pin 1, OE  |
| 16                      | Duty Cycle               | -                               | 45               | ~    | 55    | %                |  |
| 17                      | Start-Up Time            | T <sub>start</sub>              |                  |      | 2     | ms               | Measured from the time V <sub>DD</sub> reaches its rated minimum value   |



## 2、Mechanical Structure(mm)



## 3、Test Circuit



Control input (output enable/disable)

Logic 1 or open on pad 1: Oscillator output

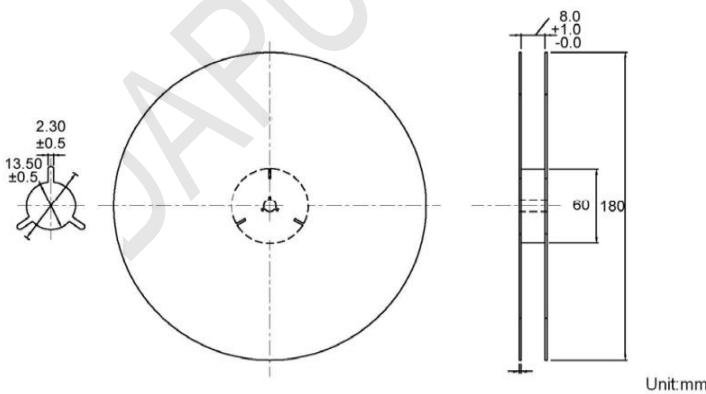
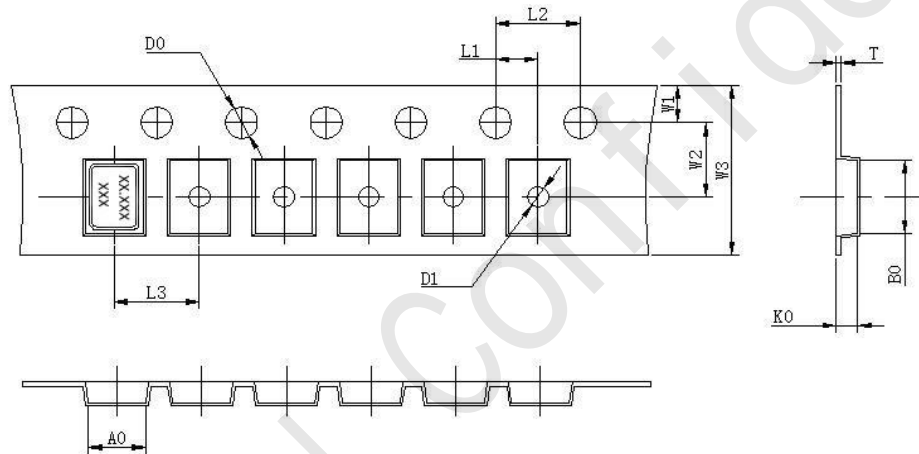
Logic 0 on pad 1 : Disable output to high impedance



### 4、 Reflow Soldering Curve (RoHS)



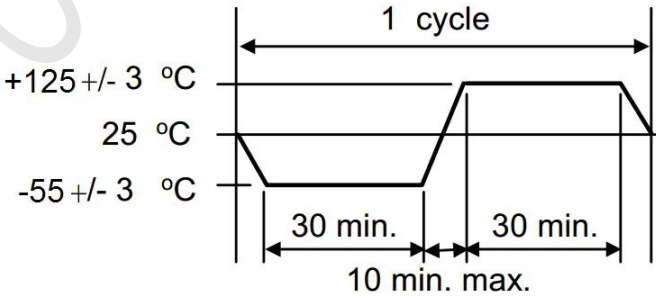
### 5、 Package: Tape & Reel (mm)



|    |           |
|----|-----------|
| L1 | 2.00±0.1  |
| L2 | 4.00±0.1  |
| L3 | 4.00±0.1  |
| D0 | 1.55±0.05 |
| D1 | 1.20±0.5  |
| W1 | 1.75±0.1  |
| W2 | 3.50±0.1  |
| W3 | 8.00±0.2  |
| A0 | 2.25±0.1  |
| B0 | 2.7±0.1   |
| K0 | 1.45±0.1  |
| T  | 0.25±0.05 |



## 6、Reliability Test Specification

| NO. | Test Items                             | Test Standard | Test Condition  | Specifications  |
|-----|--|---------------|---|---|
| 1   | Drop test                              | GB/T2423.8    | Drop from 150cm height on 3cm hard wooden board for 3 times   | Electrical performance meets specification requirements |
| 2   | Mechanical shock                       | GB/T2423.5    | Peak: 100g; Waveform: Half-sine;<br>Velocity Change: 1000m/s <sup>2</sup> ; Duration: 0.5ms;<br>3 times/direction, Direction: +X, -X, +Y, -Y, +Z, -Z. |   |
| 3   | Vibration                              | GB/T2423.10   | Frequency: 10~2000Hz;<br>Vibration:20min, 1.52mm;<br>Direction: X, Y, Z;<br>Duration: 2 hours/direction.  |   |
| 4   | Solderability                          | IEC60068-2-58 | Solder bath temperature:245±5°C<br>Dwell time:3±0.5 seconds,<br>Solder: 100% tin  |   |
| 5   | Resistance to soldering heat           | IEC60068-2-58 | Solder temperature 260±5°C,<br>Immersion time:10±1 S<br>Solder bath composition:100% tin  |   |
| 6   | High temperature storage               | GB/T2423.2    | Temperature: 125°C±2°C;<br>Duration: 500±12hours;   |   |
| 7   | Low temperature storage                | GB/T2423.1    | Temperature: -40°C±2°C;<br>Duration: 500±12hours;   |   |
| 8   | Temperature Shock                      | GB/T2423.22   | Do 10 cycles at the following temperature<br>                     |   |
| 9   | High temperature high humidity storage | GB/T2423.3    | Temperature: 85°C±3°C;<br>Humidity: 85%;<br>Duration: 500hours;   |   |