

Travelling Merchant: _____

DATASHEET

Standard: DP5X32768001

| Plot | | | The Label |
|------------------|---------|----------|------------------------|
| Drew | Audited | Approved | Stamp, please! Thanks! |
| | | | |
| Date: 2019.05.30 | | | |

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1、 Electrical Parameters

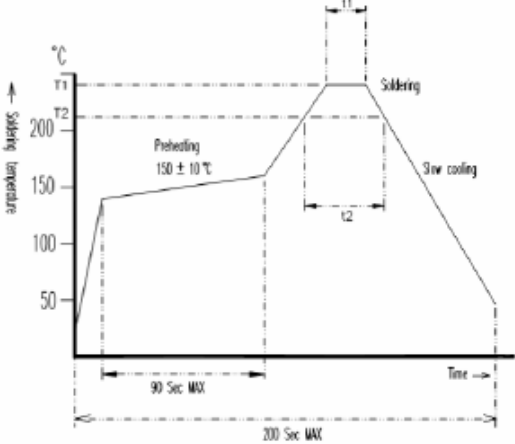
| MODEL: DP5X32768001 | | | | | | | |
|---------------------|----------------------------|---|------------------|-------|-------|------------------|--|
| No. | Parameters | SYM. | Electrical Spec. | | | | Notes |
| | | | Min. | Typ. | Max. | Units | |
| 1 | Nominal Frequency | FL | 32.768 | | | KHz | |
| 2 | Oscillation Mode | - | Fundamental | | | - | |
| 3 | Load Capacitance | CL | 12.5 | | | pF | |
| 4 | Frequency Tolerance | - | -20 | | +20 | $\times 10^{-6}$ | at 25°C $\pm 3^\circ\text{C}$ |
| 5 | Frequency Stability | - | -0.02 | -0.03 | -0.04 | $\times 10^{-6}$ | Over Operating Temp. Range (Reference 25°C) |
| 6 | Operating Temperature | - | -40 | | +85 | $^\circ\text{C}$ | |
| 7 | Storage Temperature Range | - | -55 | | +125 | $^\circ\text{C}$ | |
| 8 | Aging | - | -3 | | +3 | $\times 10^{-6}$ | +25°C, First year |
| 9 | Drive Level | DL | | | 1.0 | μW | |
| 10 | Effective Resistance Rr | Rr | | | 70 | K Ω | |
| 11 | Motional capacitance | C1 | 3 | 3.9 | 4.8 | fF | |
| 12 | Shunt Capacitance | C0 | 0.7 | 1.1 | 1.5 | pF | |
| 13 | Insulation Resistance | - | 500 | - | - | M Ω | at DC 100V |
| 14 | 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 | | | | | |
| 15 | Moisture Sensitivity Level | Level 2 | | | | | |
| 16 | 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. | | | | | |
| 17 | Shock | 100g; 6ms; half sine wave (3 times for each 3 directions X ,Y , Z),IEC 68-2-27 Test Ea/Severity 50A. | | | | | |



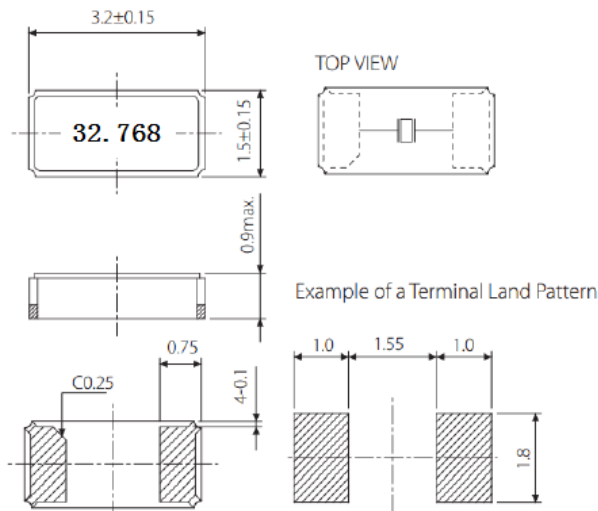
2、 Reliability Specification

| Test Item | Condition of test | Performance Requirements |
|------------------------------|---|--|
| Tensile Strength Termination | The unit's lead wire should withstand a tensile force applied to the termination in the direction of its draw-out axis of up to 1000g maintained as is for 10±2s | There should be no abnormalities detected on the unit |
| Solder ability | The lead is immersed in a 260±5℃ solder bath within 2±0.5 seconds. | A new uniform coating of solder shall cover minimum 95% of the surface being immersed. |
| Vibration | Endurance condition by a frequency sweep shall be made. The entire frequency range from 10HZ to 60HZ and return to 10HZ, shall be transverse in 1min. Amplitude(total excursion):1.5mm this motion shall be applied for a period of 2h each of 3 mutually perpendicular axes(a total of 6h) | (1).Frequency Change:±5ppm (2).Resistance:±15% |
| Drop | Form 100cm height 3 times on 3cm hard wooden floor | (1).Frequency Change:±5ppm (2).Resistance:±15% |
| Shock | Peak acceleration:981m/s ² duration of the pulse :6ms three successive shocks shall be applied in both direction of 3 mutually perpendicular axes(a total of 18 shocks) | (1).Frequency Change:±5ppm (2).Resistance:±15% |
| Damp heat | The unit shall be stored at a temperature of 40±2℃with relative humidity of 90%to95% for 48h, then it shall be subjected to standard atmospheric conditions for 1 ~ 2h after which measurement shall be made. | (1).Frequency Change:±5ppm (2).Resistance:±15% |
| Dry heat | The unit shall be stored at a temperature of 100℃±5℃ for 24h, then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made. | (1).Frequency Change:±5ppm (2).Resistance:±15% |
| Cold | The unit shall be stored at a temperature of -40℃±5℃ for 48h, then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made. | (1).Frequency Change:±5ppm (2).Resistance:±15% |
| Aging | The unit shall be stored at a temperature of 85℃±5℃ for 7d then it shall be subjected to standard atmospheric conditions for 1~2h after which measurement shall be made. | Refer to verdict specification |



| <p>Temperature cycling</p> | <p>The unit shall be subjected to 5 successive change of temperature cycles, each as show in table below,then it shall be subjected to standard atmospheric conditions for 1 ~ 2h after which measurement shall be made</p> <table border="1" data-bbox="405 416 1000 685"> <thead> <tr> <th></th> <th>Temperature</th> <th>Duration</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40°C±3°C</td> <td>30min</td> </tr> <tr> <td>2</td> <td>Standard atmospheric conditions</td> <td>Within 30s</td> </tr> <tr> <td>3</td> <td>100°C±3°C</td> <td>30min</td> </tr> <tr> <td>4</td> <td>Standard atmospheric conditions</td> <td>Within 30s</td> </tr> </tbody> </table> | | Temperature | Duration | 1 | -40°C±3°C | 30min | 2 | Standard atmospheric conditions | Within 30s | 3 | 100°C±3°C | 30min | 4 | Standard atmospheric conditions | Within 30s | <p>Refer to verdict specification</p> |
|-------------------------------------|--|---------------------------------------|---------------------|----------|---------|-----------|----------------------|---|---------------------------------|---------------------------------------|---|-----------|-------|---|---------------------------------|------------|---------------------------------------|
| | Temperature | Duration | | | | | | | | | | | | | | | |
| 1 | -40°C±3°C | 30min | | | | | | | | | | | | | | | |
| 2 | Standard atmospheric conditions | Within 30s | | | | | | | | | | | | | | | |
| 3 | 100°C±3°C | 30min | | | | | | | | | | | | | | | |
| 4 | Standard atmospheric conditions | Within 30s | | | | | | | | | | | | | | | |
| <p>Sealing</p> | <p>The crystal filter unit shall be immersed in a industry alcohol for 5±0.5 minutes then 25±3°C 1~2 Hr before testing</p> | <p>Insulation Resistance>500MΩ</p> | | | | | | | | | | | | | | | |
| <p>Resistance to soldering heat</p> |  <table border="1" data-bbox="405 1256 986 1312"> <thead> <tr> <th>Application\Temperature</th> <th>Time</th> <th>T1 / t1</th> <th>T2 / t2</th> </tr> </thead> <tbody> <tr> <td>Lead Free</td> <td>260±5°C / 10 Sec Max</td> <td></td> <td>225Min / 60 Sec Max</td> </tr> </tbody> </table> <p>Reflow soldering cure see the chart.</p> | Application\Temperature | Time | T1 / t1 | T2 / t2 | Lead Free | 260±5°C / 10 Sec Max | | 225Min / 60 Sec Max | <p>Refer to verdict specification</p> | | | | | | | |
| Application\Temperature | Time | T1 / t1 | T2 / t2 | | | | | | | | | | | | | | |
| Lead Free | 260±5°C / 10 Sec Max | | 225Min / 60 Sec Max | | | | | | | | | | | | | | |

3、 Mechanical Structure(mm)

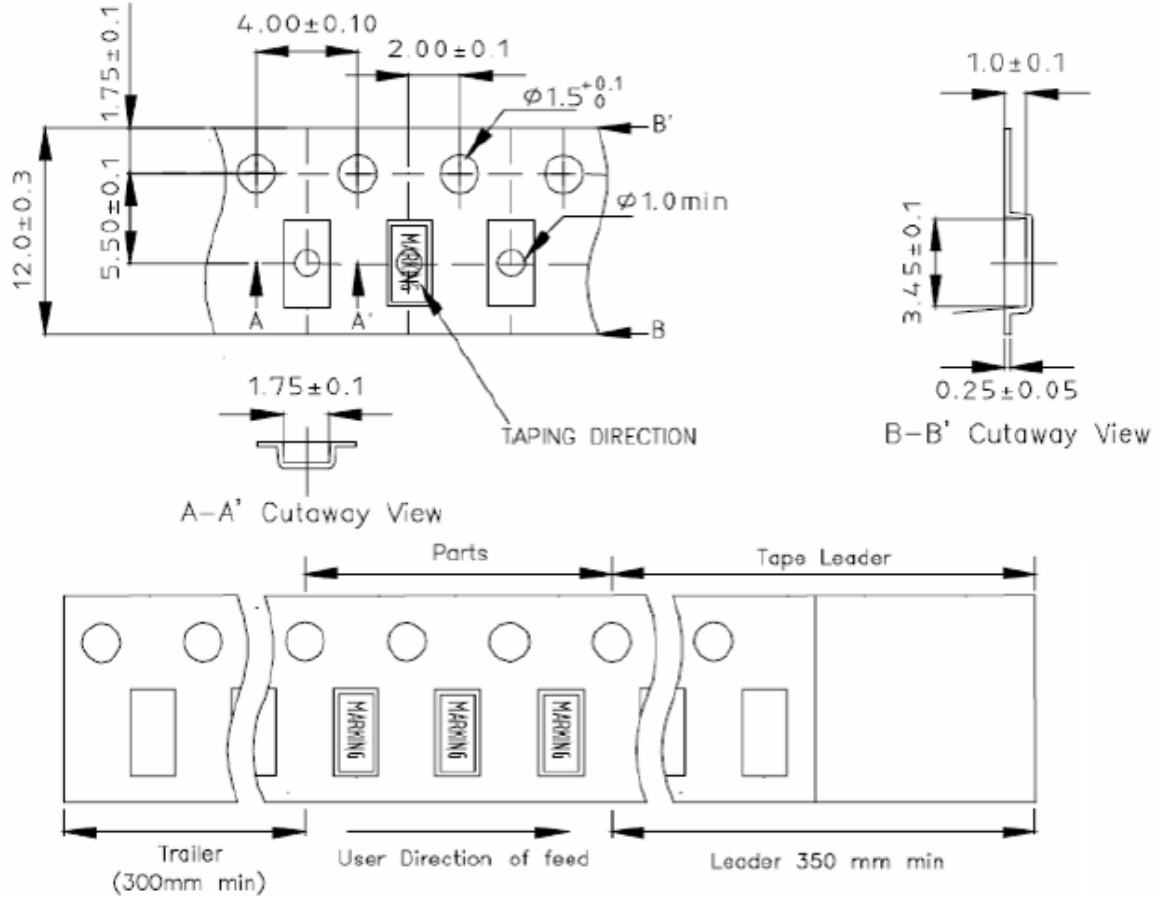


Note1: Tolerance ±0.2mm



4、 Package: Tape & Reel (mm)

1. CARRIER TYPE



2. REEL : 3000PCS

