Travelling Merchant:_____

DATASHEET

Standard: **DP5X32768001**

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Amway.wei	Carry . Wang	James . Liu	
Date: 2018.04.03			

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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℃±3℃
5	Frequency Stability	-	-0.02	-0.03	-0.04	$\times 10^{-6}$	Over Operating Temp. Range (Reference 25℃)
6	Operating Temperature	-	-40		+85	℃	
7	Storage Temperature Range	-	-55		+125	℃	
8	Aging	-	-3		+3	$\times 10^{-6}$	+25℃, First year
9	Drive Level	DL			1.0	uW	
10	Effective Resistance Rr	Rr			70	KΩ	
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	-	-	MΩ	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.					

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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 min mun 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 transverseb 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

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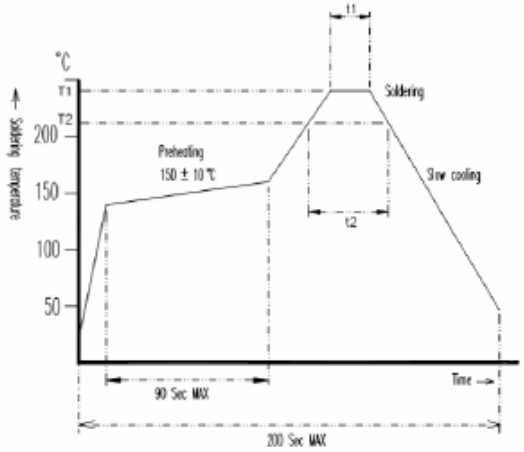
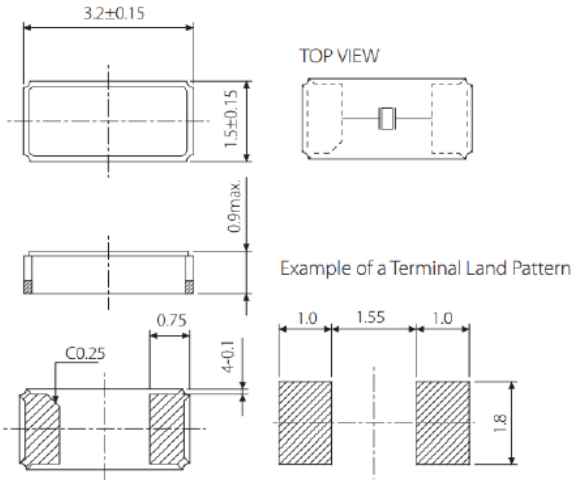
<table>
<tr><td>Temperature cycling</td><td>The unit shall be subjected to 5 successive change of temperature cycles, each as show in table below,then it shall be subjected to standard atmospheric conditions for 1 ～ 2h after which measurement shall be made
<table>
<tr><th></th><th>Temperature</th><th>Duration</th></tr>
<tr><td>1</td><td>-40℃±3℃</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℃±3℃</td><td>30min</td></tr>
<tr><td>4</td><td>Standard atmospheric conditions</td><td>Within 30s</td></tr>
</table></td><td>Refer to verdict specification</td></tr>
<tr><td>Sealing</td><td>The crystal filter unit shall be immersed in a industry alcohol for 5±0.5 minutes then 25±3℃ 1~2 Hr before testing</td><td>Insulation Resistance>500MΩ</td></tr>
<tr><td>Resistance to soldering heat</td><td> 

<table>
<tr><td>Application\Temperature Time</td><td>T1 / t1</td><td>T2 / t2</td></tr>
<tr><td>Lead Free</td><td>260±5℃ / 10 Sec Max</td><td>225Min / 60 Sec Max</td></tr>
</table>
Reflow soldering cure see the chart.</td><td>Refer to verdict specification</td></tr>
</table>

3、Mechanical Structure(mm)



Note1: Tolerance ±0.2mm

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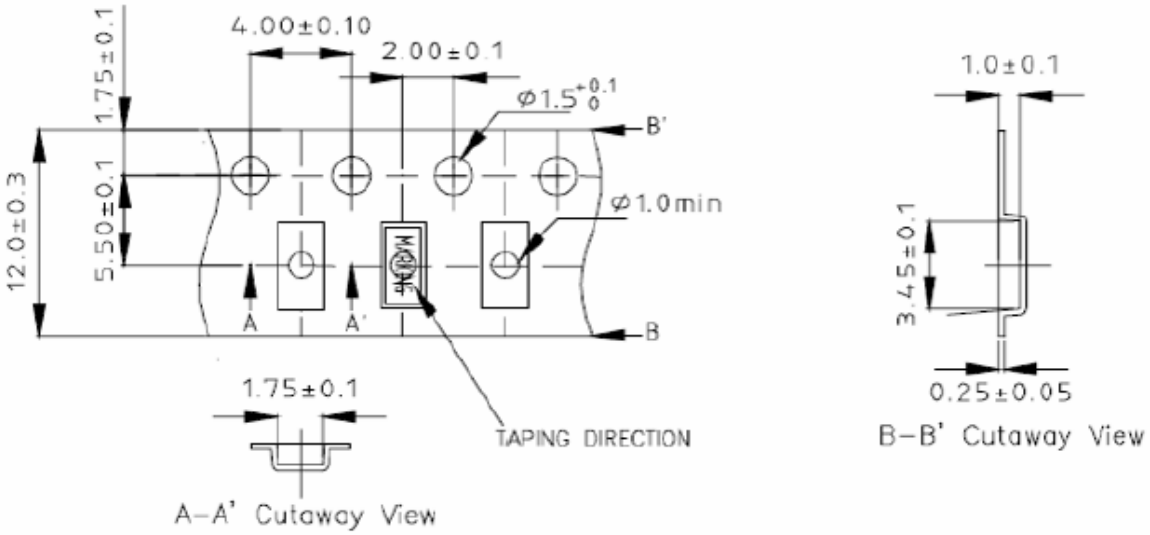
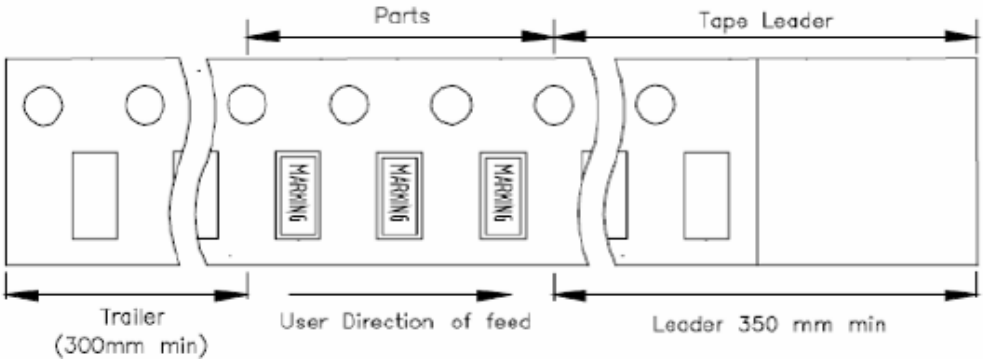
4、Package: Tape & Reel (mm)

1. CARRIER TYPE





2. REEL： 3000PCS