Travelling Merchant:_____

DATASHEET

Standard: **DPAU12000002**

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Amway.wei	Carry . Wang	James.Liu	
Date: 2017.03.21			

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1、 Electrical Parameters

MODEL：DPAU12000002							
No.	Parameters	SYM.	Electrical Spec.				Notes
			Min.	Typ.	Max.	Units	
1	Nominal Frequency	FL	12.00			MHz	
2	Oscillation Mode	-	Fundamental			-	
3	Load Capacitance	CL	20			pF	
4	Frequency Tolerance	-	-20	-	+20	$\times 10^{-6}$	
5	Frequency Stability	-	-30	-	+30	$\times 10^{-6}$	
6	Operating Temperature	-	-20	~	+70	℃	
7	Storage Temperature Range	-	-55	~	+125	℃	
8	Aging	-	-3	-	+3	$\times 10^{-6}$	1st Year
9	Drive Level	DL			100	uW	
10	Shunt Capacitance C0	C0		-	2	pF	
11	Resonance Resistance				100	Ω	
12	Insulation Resistance	-	500	-	-	MΩ	

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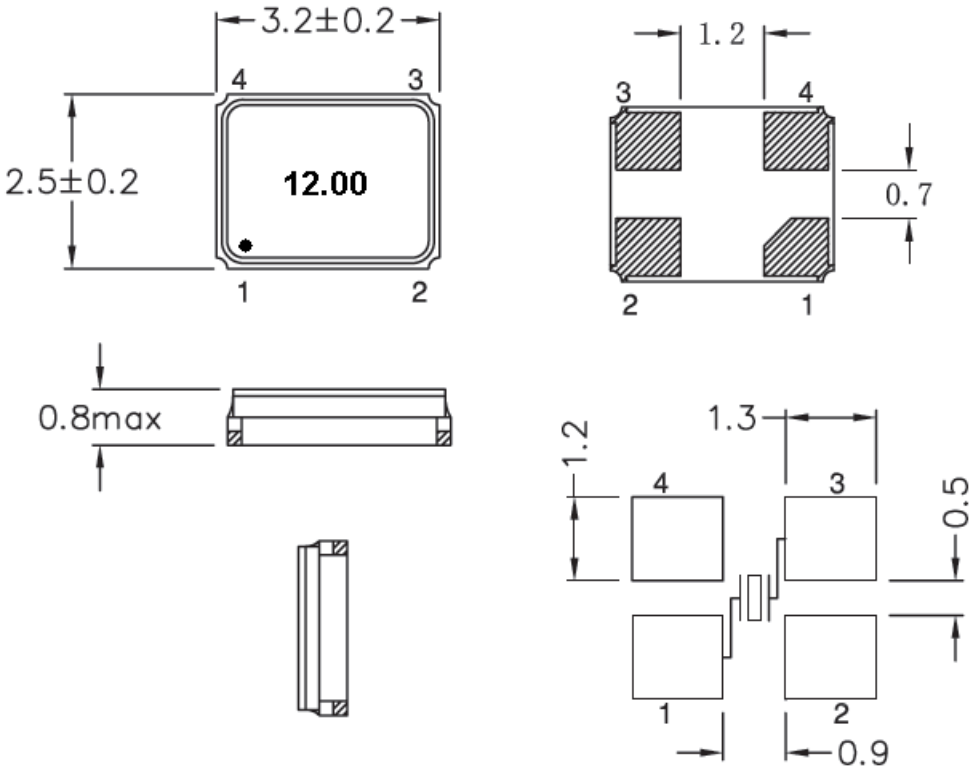
2、 Mechanical Structure(mm)

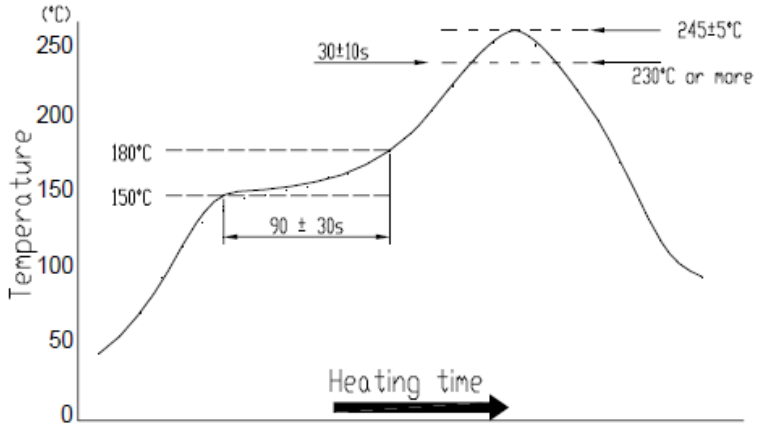


Note: Tolerance: ±0.2mm

3、 Recommended Reflow soldering condition

Solder profile

Peak: 245±5℃ Soldering zone: 230℃ or more, 30±10s. Pre-heating zone 1: 150～180℃, 90±30s



Temperature profile for reflow soldering

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4、Reliability Specifications

NO.	PROCESS	SPECIFICATION	TEST METHOD
4.1	Temperature Cycle (GB/T 2423.22-2002, Method Nb)	Frequency change after test ≤± 5ppm.Resonance resistance change after test ≤10ohms.	10 cycles from -55°C to 125°C. Measurement taken after DUT being left at room temperature for 24±2 hours.
4.2	Low Temperature Storage (GB/T 2423.1-2001, Method Aa)	Frequency change after test ≤± 5ppm.Resonance resistance change after test ≤10ohms.	Spending 72 hrs at -55°C±3°C constant temperature. Measurement taken after DUT being left at room temperature for 24±2 hours.
4.3	High Temperature Storage (GB/T 2423.2-2001, Method Ba)	Frequency change after test ≤± 5ppm.Resonance resistance change after test ≤10ohms.	Spending 72 hrs at 125°C±3°C constant temperature. Measurement taken after DUT being left at room temperature for 24±2 hours.
4.4	Humidity (GB/T 2423.3-2006, Method Cab)	Frequency change after test ≤± 5ppm.Resonance resistance change after test ≤10ohms.	Spending 96 hrs at 40 °C ± 3 °C, with 93 %R.H, Then keep the DUT in dry oven at 40 ± 5 °C for 24 hour. Measurement taken after DUT being left at room temperature for 1 to 2 hours.
4.5	Vibration (GB/T 2423.10-1995, Method Fc)	Frequency change after test ≤± 5ppm.Resonance resistance change after test ≤10ohms.	Apply 0.75mm vibration at sweep frequency 10～500 Hz, 10 cycles in each direction of 3 axis. Measurement taken after 1 hour.
4.6	Shock (GB/T 2423.5-1995, Method Ea)	Frequency change after test ≤± 5ppm.Resonance resistance change after test ≤10ohms.and exhibit no visible damage.	Peak 1000m/s2, normal width 6ms half sine wave form, 3.7m/s, 3 perpendicular axis of samples, 3 cycles / direction, total 18 cycles. Measurement taken after 1 hour.
4.7	Drop (GB/T 2423.8-1995, Method Ed)	Frequency change after test ≤± 5ppm.Resonance resistance change after test ≤10ohms.and exhibit no visible damage.	Free drop to the steel plate with thickness of 3 mm from 1.00 m heights for 3 times.
4.8	Solderability (IEC60068-2-58,Test Td:)	Terminals shall be covered more then 95% with solder.	Passed through the re-flow oven under the following condition. Preheat 150 to 180°C for 60 to 120sec, and soldering time for 20s ± 5s at 235°C, peak soldering time for 10s ± 1s betweein 240 and 250°C. There is no need to do functional test. 8-12X magnifier.
4.10	Resistance to Soldering Heat (IEC60068-2-58,Test Td: Table 4)	Frequency change after test ≤± 5ppm.Resonance resistance change after test ≤10ohms.	Passed through the re-flow oven under the following condition. Preheat 150 to 180°C for 60 to 120sec, and sodering time for 60s max at 235°C, peak soldering time for 20s max at 265°C max. Measurement taken after DUT being left at room temperature for at least 2 hours.

5、Soldering iron method

Bit temperature: 350±10℃ Application time of soldering iron:3+1 s. For other procedures, refer to IEC 60068-2-20.

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6、Package: Tape & Reel (mm)