

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

# DATASHEET

DAPU P/N:           **M22B-J325-25.00MHz**          

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

| DAPU             |         |          | Customer Approval      |
|------------------|---------|----------|------------------------|
| Drew             | Audited | Approved | Stamp, please! Thanks! |
|                  |         |          |                        |
| Date: 2015.08.27 |         |          |                        |

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## 1. Electrical Parameters

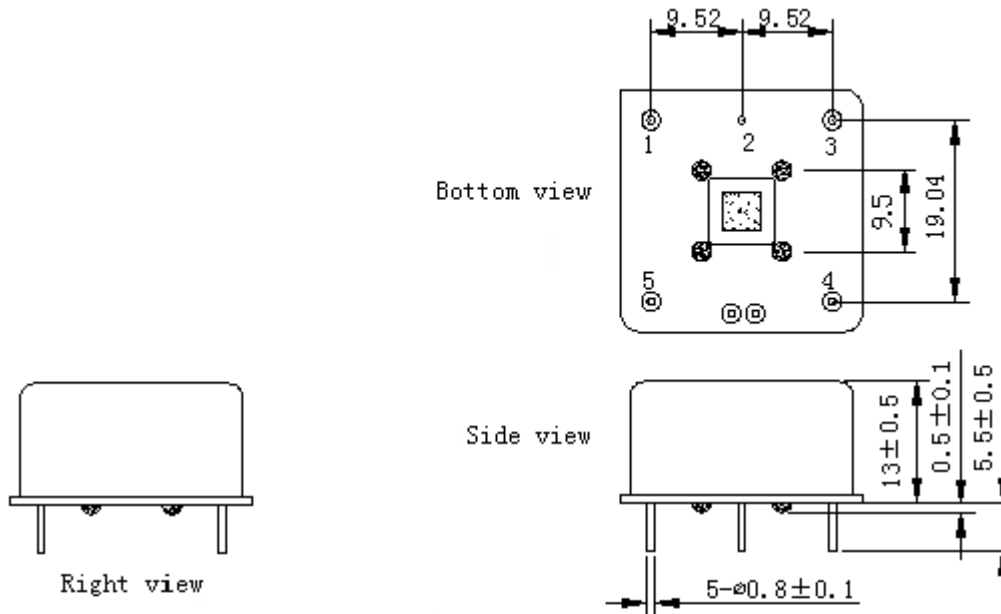
| MODEL: M22B-J325-25.00MHz |   |            |      |       |                  |  |
|---------------------------|---|------------|------|-------|------------------|--|
| Item                      | Description   | Parameters |      |       | Unit             | Test Condition   |
|                           |   | Min.       | Typ. | Max.  |                  |  |
| Output                    | Frequency   | 25.00      |      |       | MHz              |  |
|                           | Output Waveform                                     | HCMOS      |      |       |                  |  |
|                           | Output Low Voltage                                  |            |      | 0.4   | V                | $V_{cc}=5.0V, O_{load}=15pF$   |
|                           | Output High Voltage                                 | 3.0        |      |       | V                | $V_{cc}=5.0V, O_{load}=15pF$   |
|                           | Duty Cycle  | 45         | 50   | 55    | %                | @50%   |
|                           | Rise / Fall Time<br>(10%~90%)                       |            |      | 5     | ns               | @25°C  |
|                           | Load  | 15         |      |       | pF               |  |
| Frequency Stabilities     | Frequency Tolerance vs. Operating Temperature Range | -0.1       |      | +0.1  | $\times 10^{-6}$ | $T_A$ varied from -40°C to 85°C, measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V, V_c=2.5V, O_{load}=15pF$ , temperature variable speed less than 2°C per minute. |
|                           | Initial Frequency Tolerance                         | -0.5       |      | +0.5  | $\times 10^{-6}$ | Measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V, V_c=2.5V$ and after 15 minutes of operation, within 30 days after ex-works..                                     |
|                           | Frequency Tolerance vs. Supply Voltage              | -0.1       |      | +0.1  | $\times 10^{-6}$ | measurement referenced to frequency observed $T_A=25^\circ C, V_{cc}$ varied from 4.75V to 5.25V, $V_c=2.5V$ and $O_{Load}=15pF$ .   |
|                           | Frequency Tolerance vs. Load                        | -0.1       |      | +0.1  | $\times 10^{-6}$ | 10% load change measurement referenced to frequency observed with $T_A=25^\circ C, V_{cc}=5.0V, V_c=2.5V, O_{Load}=15pF$ .   |
|                           | Short-Term Stability:                               |            |      | 0.01  | $\times 10^{-6}$ | Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25°C; 1s, using PN9000 equipment.  |
|                           | Aging Tolerance Per Day                             | -0.01      |      | +0.01 | $\times 10^{-6}$ | $T_A=25^\circ C, V_{cc}=5.0V, V_c=2.5V$ and after 1h of operation.   |
|                           | Aging Tolerance 1 Year                              | -1         |      | +1    | $\times 10^{-6}$ |  |
| Power Supply              | Current Consumption                                 |            |      | 15    | mA               | @25°C, $V_{cc}=5.0V, V_c=2.5V, O_{load}=15pF$ .  |
|                           | Supply Voltage                                      | 4.75       | 5.0  | 5.25  | V                |  |



|                                 |  |  |      |      |                  |   |
|---------------------------------|--|--|------|------|------------------|---|
| Voltage Control Characteristics | Frequency Tuning Range   |  |      | -5   | $\times 10^{-6}$ | $V_c=0V$ . measurement referenced to $V_c=2.5V$         |
|                                 |  | -0.5   |      | +0.5 | $\times 10^{-6}$ | $V_c=2.5V$ . measurement referenced to exactly 25.00MHz |
|                                 |  | +5   |      |      | $\times 10^{-6}$ | $V_c=5.0V$ . measurement referenced to $V_c=2.5V$       |
|                                 | Linearity  |  |      | 10   | %                |   |
|                                 | Slope  | Positive   |      |      |                  |   |
|                                 | Input Impedance  | 100  |      |      |                  | K $\Omega$  |
| Phase Noise                     | Phase Noise @25°C  |  | -130 | -125 | dBc/Hz           | 1KHz  |
| Environmental Conditions        | Operable Temperature   | -40  |      | +85  | °C               |   |
|                                 | Storage Temperature  | -55  |      | +105 | °C               |   |
|                                 | 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.   |      |      |                  |   |
|                                 | Moisture Sensitivity Level   | Not humidity sensitive.  |      |      |                  |   |
|                                 | 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 (°C)   | -10~35°C   |      |      |                  |   |

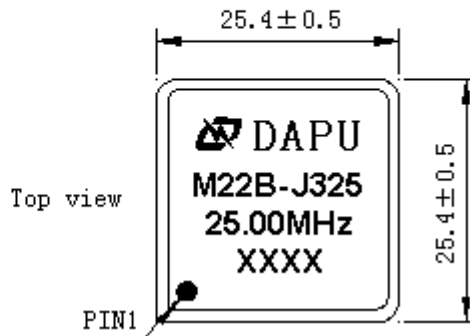


## 2. Mechanical Structure(mm)



### PIN FUNCTION

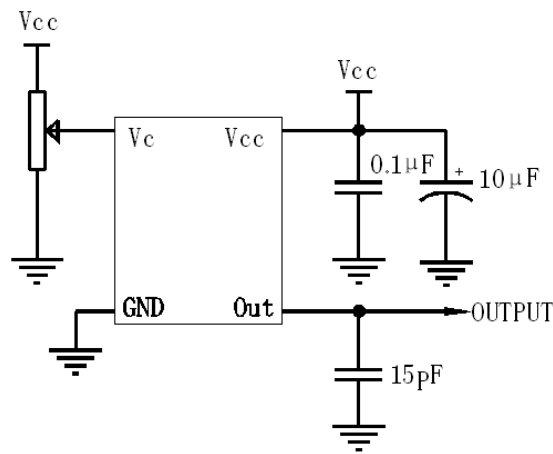
| PIN | NOTATION | FUNCTION        |
|-----|----------|-----------------|
| 1   | OUTPUT   | RF Output       |
| 2   | GND      | GND             |
| 3   | VC       | Control Voltage |
| 4   | NC       | Not Connect     |
| 5   | VCC      | Supply Voltage  |



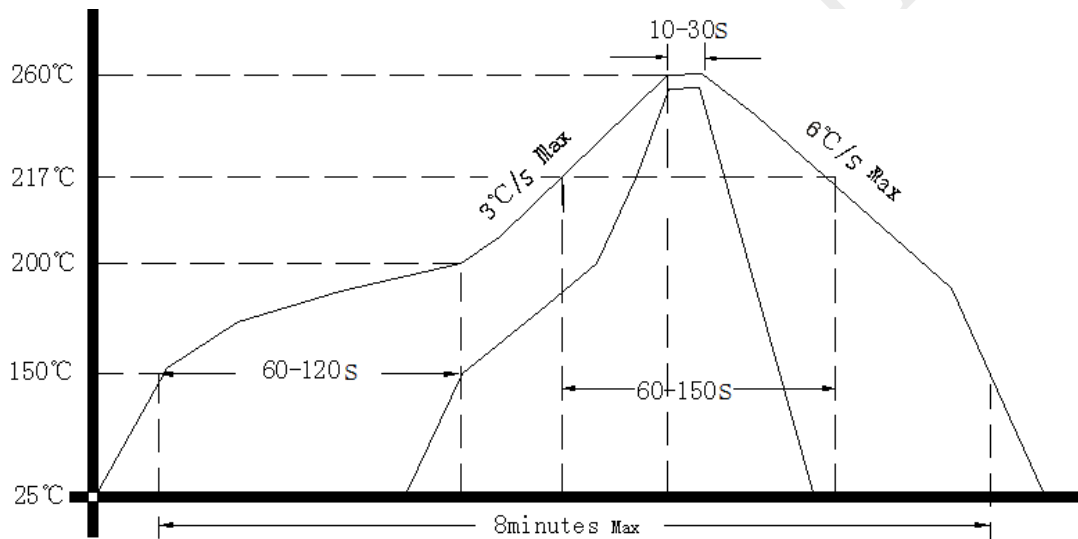
- Note1:** Tolerance ±0.20mm without mark
- Note2:** The first two xx representative: week  
After two xx representative: year
- Note3:** Referential Weight 13.6g
- Note4:** NC is not connect



### 3. Test circuit



### 4. Reflow Soldering Curve (RoHS)



### 5. Package: PVC Tube,10pcs (mm)

