

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

# DATASHEET

DAPU P/N:           **O23B-R425-10.00MHz-A**          

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

DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2015.11.25			

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### Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2015.11.25

DAPU Confidential



## 1. Electrical Parameters

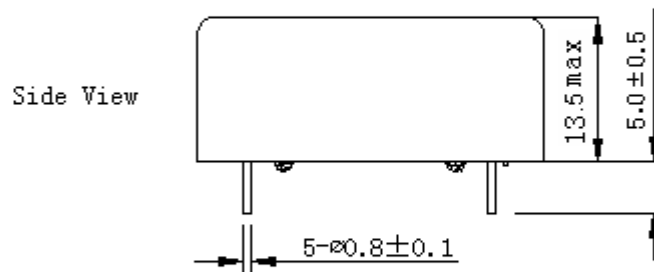
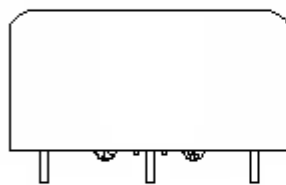
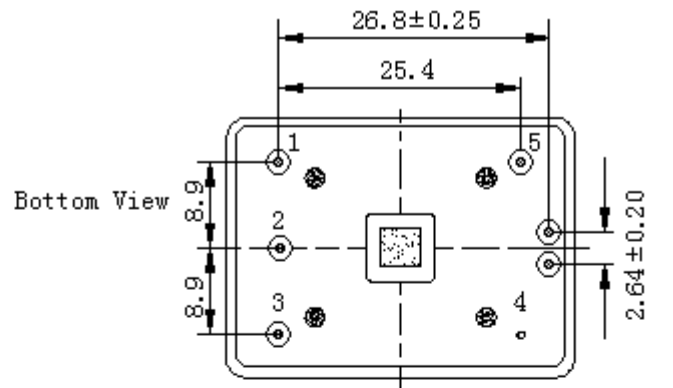
MODEL: O23B-R425-10.00MHZ-A							
Item	Description	Parameters			Unit	Test Condition	
		Min.	Typ.	Max.			
Output	Frequency	10.00			MHz		
	Output Waveform	Sine wave					
	Level	8			dBm		
	Load	50			$\Omega$		
	Harmonics Suppression			-30	dBc		
	Spurious Suppression			-60	dBc		
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.05		+0.05	$\times 10^{-9}$	$T_A$ varied from $-20^{\circ}\text{C}$ to $70^{\circ}\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$ , $V_{\text{cc}}=5.0\text{V}$ , $O_{\text{load}}=50\Omega$ , temperature variable speed less than $2^{\circ}\text{C}$ per minute.	
	Initial Frequency Tolerance	-0.01		+0.01	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ and after 15 minutes of operation, within 30 days after ex-works.	
	Frequency Tolerance vs. supply voltage	-0.05		+0.05	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}$ varied from 4.75V to 5.25V, $O_{\text{load}}=50\Omega$ .	
	Frequency Tolerance vs. Load	-0.05		+0.05	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $O_{\text{load}}=50\Omega$ .	
	Short Term Stability				0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^{\circ}\text{C}$ ; 1s, using PN9000 equipment.
					0.001	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^{\circ}\text{C}$ ; 10s, using PN9000 equipment.
					0.001	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^{\circ}\text{C}$ ; 100s, using PN9000 equipment.
	Aging Tolerance per day	-0.2		+0.2	$\times 10^{-9}$	$V_{\text{cc}}, V_{\text{c}}, T_A$ constant Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ ,	
Aging Tolerance 1 Year	-0.02		+0.02	$\times 10^{-6}$	$V_{\text{cc}}=5.0\text{V}$ , $O_{\text{load}}=50\Omega$ and after 30 days of operation.		
Power Supply	Supply Voltage	4.75	5.0	5.25	V		
	Steady Consumption			700	mA	@ $25^{\circ}\text{C}$	
	Warm up current			1400	mA		



	Warm-Up Time			5	min	@25°C within $\pm 0.015 \times 10^{-6}$ of final frequency with reference after 1 hour on.
Voltage Control Characteristics	Frequency Tuning Range			-0.1	$\times 10^{-6}$	DAC=0x0000. measurement referenced to DAC=0x7FFF
		-0.01		+0.01	$\times 10^{-6}$	DAC=0x7FFF. measurement referenced to Exactly 10.00MHz
		+0.1			$\times 10^{-6}$	DAC=0xFFFF. measurement referenced to DAC=0x7FFF
	Linearity			10	%	
	Slope	Positive				
Input Impedance	100				K $\Omega$	
Phase Noise	Phase Noise @25°C		-130	-120	dBc/Hz	10Hz
			-145	-135		100Hz
			-150	-145		1KHz
			-150	-145		10KHz
			-150	-145		100KHz
			-150	-145		1MHz
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~500Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X , Y , Z), IEC 68-2-06 Test Fc.				
Shock	50g; 11ms; 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				

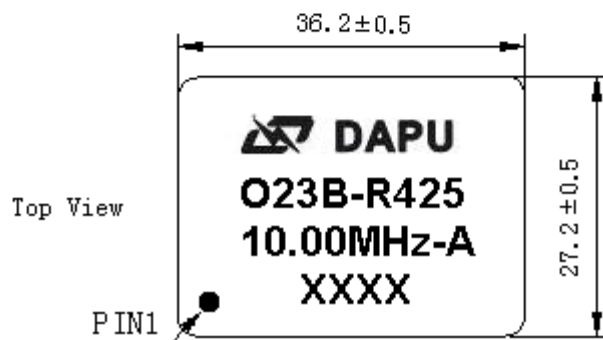


## 2. Mechanical Structure (mm)



### PIN FUNCTION

PIN	FUNCTION
1	VCC
2	SDA
3	SCL
4	GND
5	OUTPUT



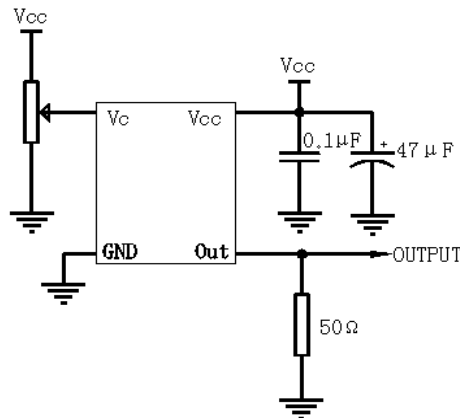
**Note1:** Tolerance  $\pm 0.20$ mm without mark

**Note2:** The first two xx representative: week  
After two xx representative: year

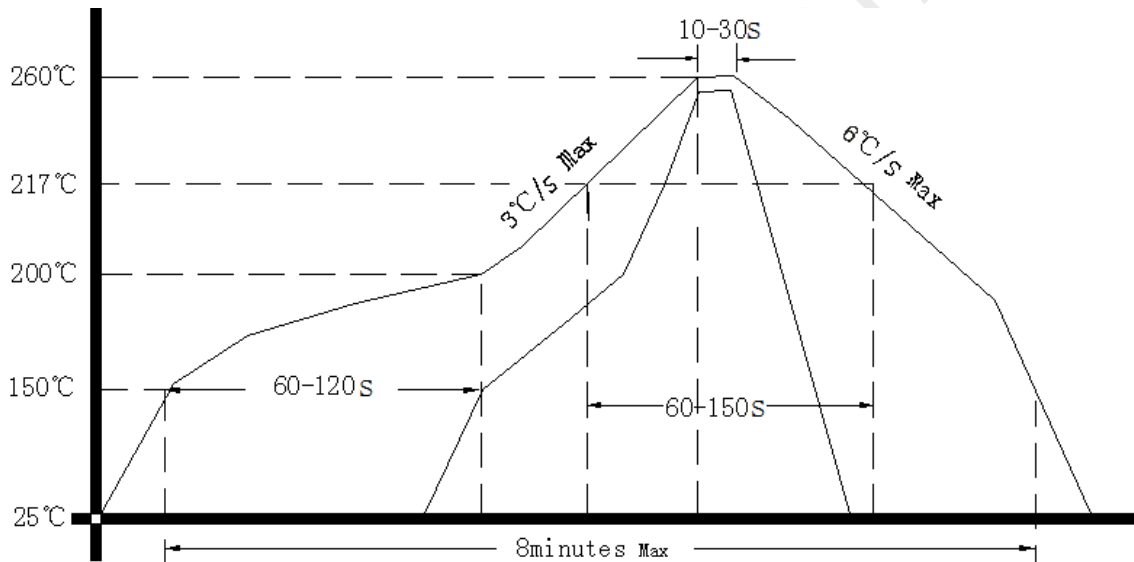
**Note3:** Referential Weight 20.7g



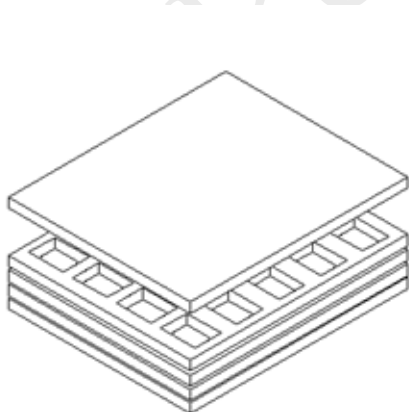
### 3. Test Circuit



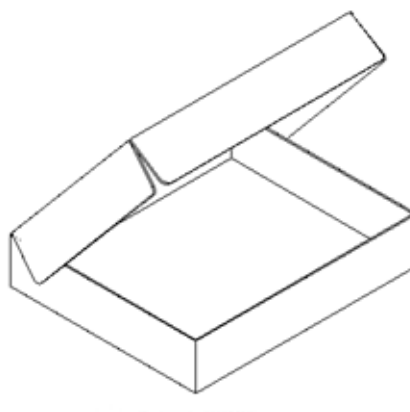
### 4. Reflow Soldering Curve (RoHS)



### 5. Package(mm)



Buffer material



Cardboard  
Max 20pcs. circulator

