

Travelling Merchant: \_\_\_\_\_

# DATASHEET

Standard:           **O23B-A425-10.00MHz**          

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

Plot			The Label
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2016.11.16			

## Guangdong Dapu Telecom Technology Co.,Ltd

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, China

TEL: 0086-0769-88010888    FAX: 0086-0769-81800098



### Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	<i>Amway</i>	2016.11.16

DAPU Confidential



## 1. Electrical Parameters

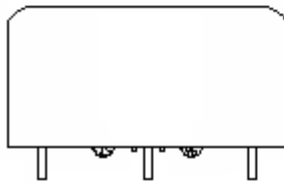
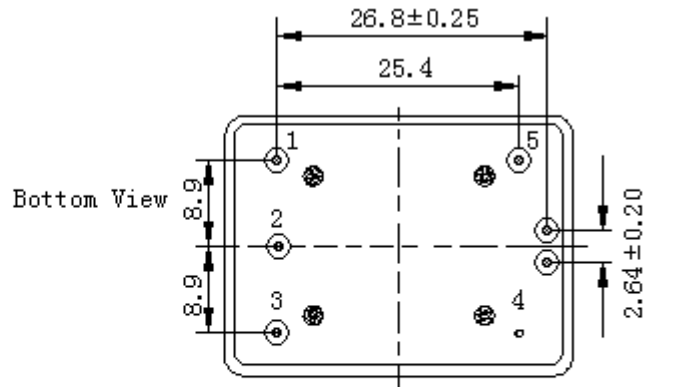
MODEL: O23B-A425-10.00MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	10.00			MHz	
	Output Waveform	Sine wave				
	Level	6		10	dBm	
	Load	50			$\Omega$	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-60	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-0.2		+0.2	$\times 10^{-9}$	$T_A$ varied from $-20^{\circ}\text{C}$ to $75^{\circ}\text{C}$ , measurement referenced to frequency observed with $f_{\text{ref}}=(f_{\text{max}}+f_{\text{min}})/2$ , $V_{\text{cc}}=5.0\text{V}$ , $V_{\text{c}}=2.5\text{V}$ , $O_{\text{load}}=50\Omega$ , temperature rise speed less than $2^{\circ}\text{C}$ per minute.
	Initial Frequency Tolerance	-0.05		+0.05	$\times 10^{-6}$	Measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_{\text{c}}=2.5\text{V}$ , and after 15 minutes of operation, within 30 days after ex-works.
	Frequency Tolerance vs. Supply Voltage	-0.1		+0.1	$\times 10^{-9}$	measurement referenced to frequency observed $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}$ varied from 4.75V to 5.25V, $V_{\text{c}}=2.5\text{V}$ and $O_{\text{Load}}=50\Omega$ .
	Frequency Tolerance vs. Load	-0.1		+0.1	$\times 10^{-9}$	5% load change measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_{\text{c}}=2.5\text{V}$ , and $O_{\text{Load}}=50\Omega$ .
	Short-Term Stability Allan Variance			5	$\times 10^{-12}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to $25^{\circ}\text{C}$ ; 1s, using PN9000 equipment.
	Aging Tolerance Per Day	-0.2		+0.2	$\times 10^{-9}$	$V_{\text{cc}}$ , $T_A$ constant measurement referenced to frequency observed with $T_A=25^{\circ}\text{C}$ , $V_{\text{cc}}=5.0\text{V}$ , $V_{\text{c}}=2.5\text{V}$ , and after 30 days of operation.
	Aging Tolerance 1 Year	-0.02		+0.02	$\times 10^{-6}$	



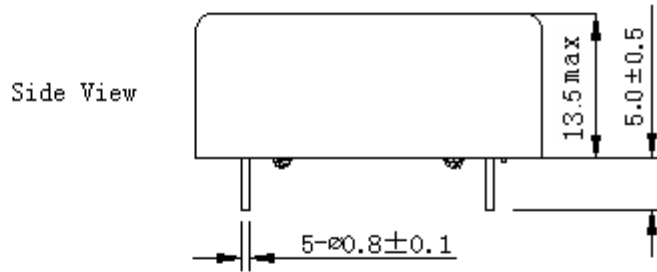
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Steady Consumption			600	mA	@25°C
	Warm up current			1600	mA	
	Warm-Up Time			5	min	@25°C within $\pm 0.015 \times 10^{-6}$ of final frequency with reference after 1 hour on.
Voltage Control Characteristics	Frequency Tuning Range	-0.5		-0.3	$\times 10^{-6}$	$V_c=0V$ . measurement referenced to $V_c=2.5V$
		-0.05		+0.05	$\times 10^{-6}$	$V_c=2.5V$ . measurement referenced to exactly 10.00MHz
		+0.3		+0.5	$\times 10^{-6}$	$V_c=5.0V$ . measurement referenced to $V_c=2.5V$
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			K $\Omega$	
Phase Noise	Phase Noise		-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)



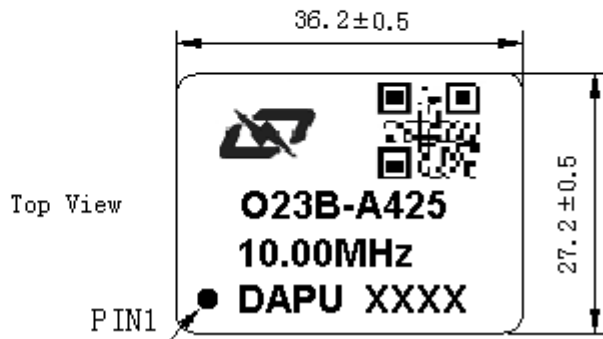
Right View



Side View

### PIN FUNCTION

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

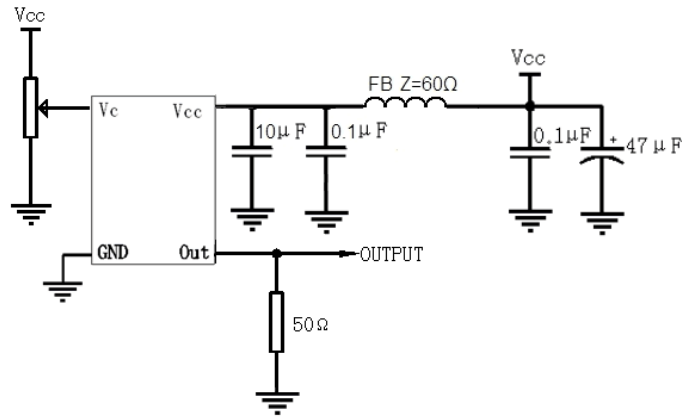


Top View

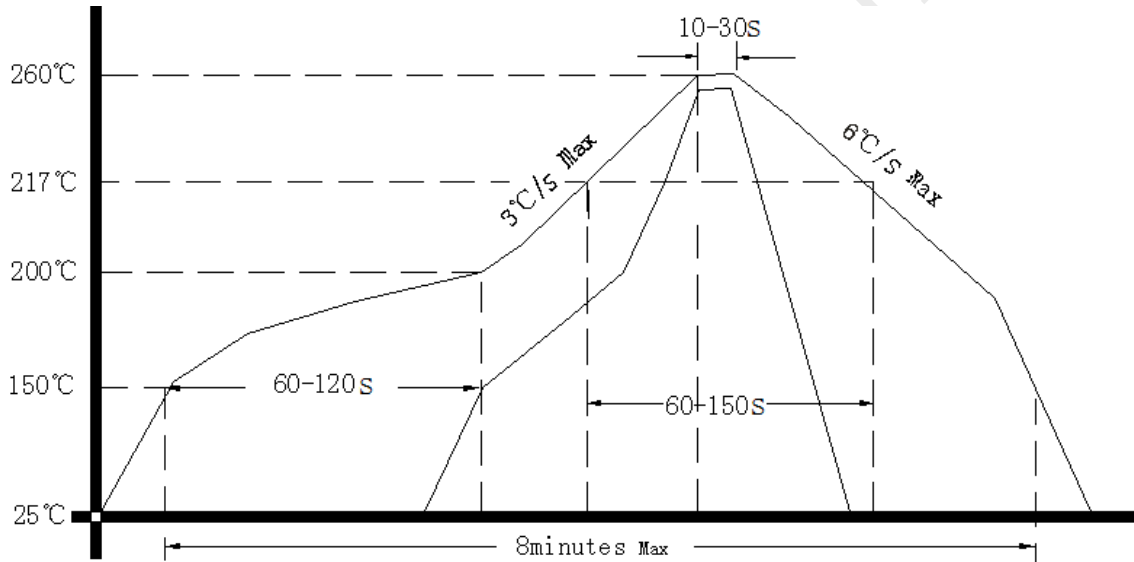
- Note1:** Tolerance  $\pm 0.2\text{mm}$  without mark
- Note2:** Referential weight 20.7g
- Note3:** NC is not connect
- Note4:** The first two xx representative: week  
After two xx representative: year



#### 4. Test Circuit



#### 5. Reflow Soldering Curve (RoHS)



#### 6. Package (mm)

