Travelling Merchant:_____

DATASHEET

Standard: **O23B-ESBD-10.00MHz-A**

P/N: _____

Plot			The Label
Drew	Audited	Approved	
Amway.wei	Tony · Wang	Jason zhao	
Date: 2020.08.12			Stamp, please! Thanks!

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

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PR China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

Table of amendment

Version	Revision contents	Prepared by	Revised date
1.0	The first issued	Amway	2013.11.22
1.1	The “ESD Level” “Mechanical Structure” changed	Amway	2020.08.12

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PR China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

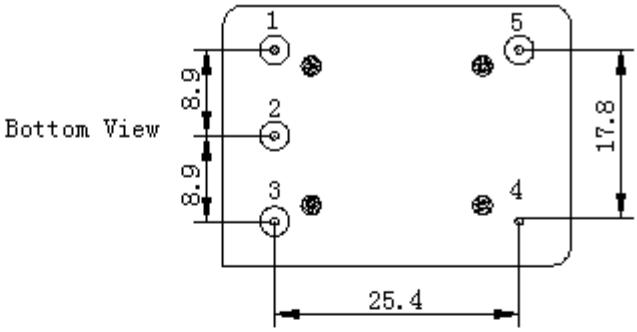
1. Electrical Parameters

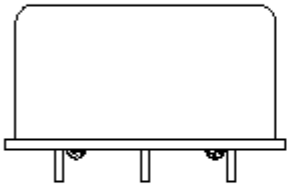
MODEL： O23B-ESBD-10.00MHz-A						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency		10.00		MHz	
	Output Waveform		Sine wave			
	Level	6		10	dBm	
	Load		50		Ω	
	Harmonics Suppression			-30	dBc	
	Spurious Suppression			-60	dBc	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-3		+3	$\times 10^{-9}$	T_A varied from -10℃ to 70℃, measurement referenced to frequency observed with $f_{ref}=(f_{max}+f_{min})/2$, V_{cc}=5.0V, O_{load}=50Ω, temperature rise speed less than 2℃per minute.
	Initial Frequency Tolerance	-0.05		+0.05	$\times 10^{-6}$	Measurement referenced to frequency observed with T_A=25℃, 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	-1		+1	$\times 10^{-9}$	measurement referenced to frequency observed T_A=25℃, V_{cc} varied from 4.75V to 5.25V, V_c=2.5V, O_{load}=50Ω.
	Frequency Tolerance vs. Load	-1		+1	$\times 10^{-9}$	5% Load Change Measurement referenced to frequency observed with T_A=25℃,V_{cc}=5.0V, V_c=2.5V, O_{load}=50Ω.
	Short Term Stability: Allan Variance			0.01	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25℃; 1s.
				0.05	$\times 10^{-9}$	Temperature stability, no EMI\EMC or other interference, test after power for 1hour ref. to 25℃; 100s.
	Aging Tolerance per day	-0.3		+0.3	$\times 10^{-9}$	V_{cc},V_c, T_A constant Measurement referenced to frequency observed with T_A=25℃,V_{cc}=5.0V ,V_c=2.5V, O_{load}=50Ω and after 30 days of operation.
	Aging Tolerance 1Year	-0.05		+0.05	$\times 10^{-6}$	
	Aging Tolerance 10 Years	-0.3		+0.3	$\times 10^{-6}$	
	Aging Tolerance 15 Years	-0.4		+0.4	$\times 10^{-6}$	

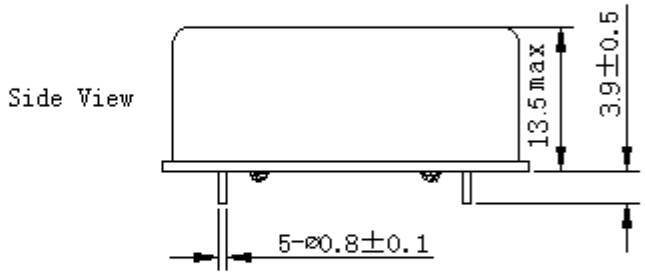
Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PR China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

	Daily Fluctuation	-3.6		+3.6	$\times 10^{-9}$	V_{cc}=5.0V, temperature change range ±2.8℃, after 30 days of operation.
	Retrace after 24 hours off			30	minutes	@25℃within $\pm 0.01 \times 10^{-6}$of final frequency , with the frequency before turn off after 48hours on.
Power Supply	Supply Voltage	4.75	5.0	5.25	V	
	Current Consumption			600	mA	@25℃
	Current Consumption during warm up			1200	mA	
	Warm-Up Time			8	minutes	@25℃within $\pm 0.01 \times 10^{-6}$of final frequency with reference after 1 hour on.
Voltage Control Characteristics	Frequency Tuning Range	-0.4		-0.2	$\times 10^{-6}$	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.
		+0.2		+0.4	$\times 10^{-6}$	V_c=5.0V. measurement referenced to V_c=2.5V.
	Linearity			10	%	
	Slope	Positive				
	Input Impedance	100			KΩ	
Phase Noise	Phase Noise @25℃		-100	-95	dBc/Hz	1Hz
			-132	-127		10Hz
			-145	-140		100Hz
			-150	-145		1KHz
			-155	-150		10KHz
			-155	-150		100KHz
Environmental Conditions	Operable Temperature	-10		+70	℃	
	Storage Temperature	-55		+105	℃	
	ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; JEDEC JESD22-A115C.				
	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.				

2. Mechanical Structure (mm)

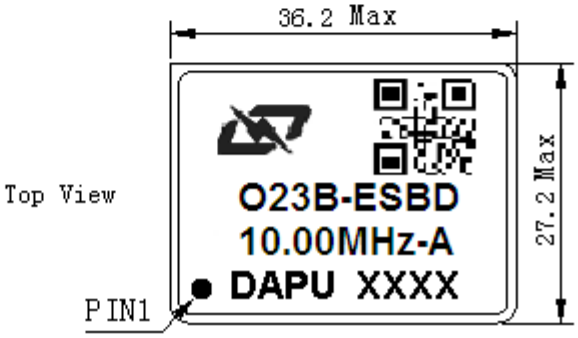






PIN FUNCTION

PIN	FUNCTION
1	VCC
2	NC
3	VC
4	GND
5	OUTPUT



Note1: Tolerance ±0.2mm without mark

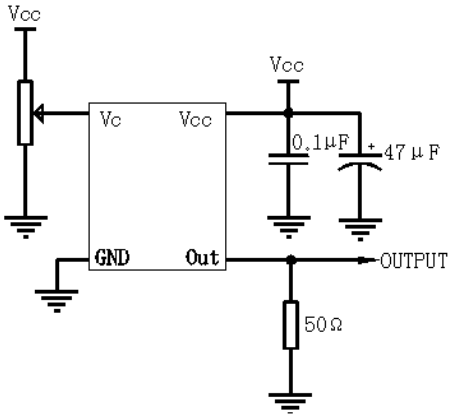
Note2: Referential Weight 20.7g

Note3: NC is not connect

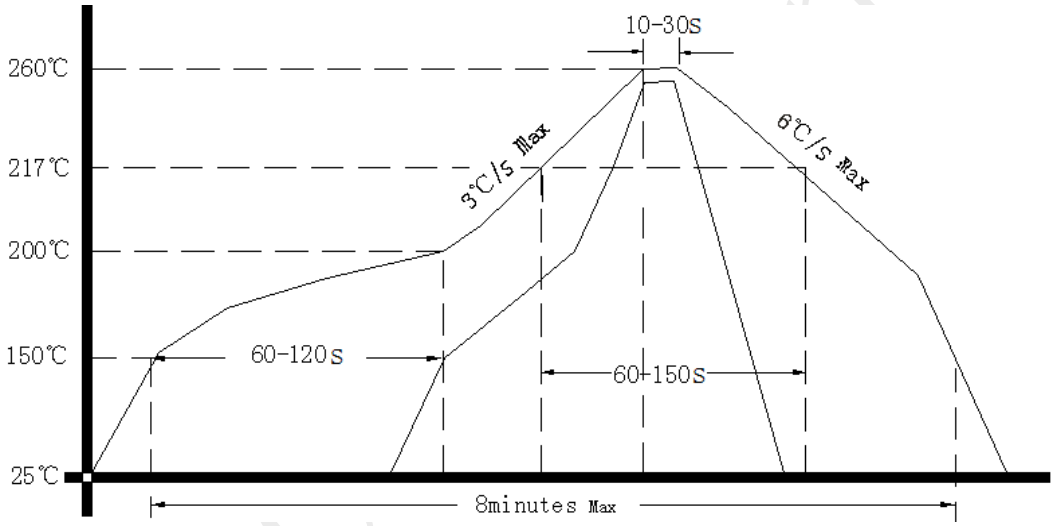
Note3: The first two xx representative: week
After two xx representative: year

Bldg13-16,.N.Ind.Zone,SSL Industry Park, Dongguan City, Guangdong Province, PR China
TEL:0086-0769-88010888
FAX:0086-0769-81800098

3. Test Circuit



4. Reflow Soldering Curve (RoHS)



5. Package(mm)