

Travelling Merchant: A002

# DATASHEET

Standard: O22B-F819-20.00MHz

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

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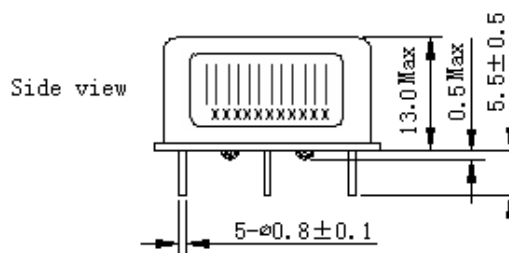
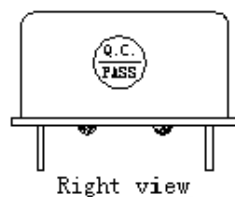
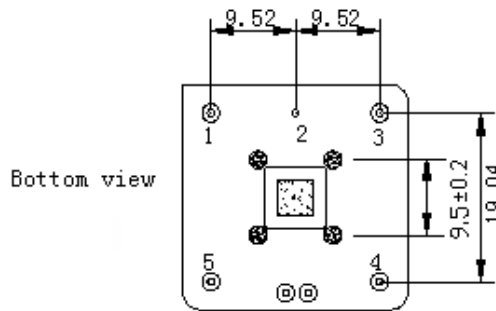
## 1、Electrical Parameters

MODEL: O22B-F819-20.00MHZ						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	20.00			MHz	
	Output Waveform	LVCMOS				
	Duty Cycle	40	50	60	%	@50%
	Output low voltage			+0.4	V	V <sub>cc</sub> =3.3V, O <sub>load</sub> =15pF
	Output high voltage	+2.7			V	V <sub>cc</sub> =3.3V, O <sub>load</sub> =15pF
	Rise / Fall time (10%~90%)		7	8	ns	@25°C
	Load		15		pF	
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-5		+5	ppb	T <sub>A</sub> varied from -20°C to 70°C, measurement referenced to frequency observed with T <sub>A</sub> = 25°C, V <sub>cc</sub> =3.3V, O <sub>load</sub> =15pF, temperature rise speed less than 2°C per minute
	Initial Frequency Tolerance	-0.05		+0.05	ppm	Measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, and after 15 minutes of operation, within 30 days after ex-works
	Frequency Tolerance vs. Supply Voltage	-5		+5	ppb	measurement referenced to frequency observed T <sub>A</sub> =25°C, V <sub>cc</sub> varied from 3.14V to 3.47V, O <sub>load</sub> =15pF
	Frequency Tolerance vs. Load	-5		+5	ppb	5% load change measurement referenced to frequency observed with T <sub>A</sub> = 25°C, V <sub>cc</sub> = 3.3V, and O <sub>load</sub> =15pF
	Short-Term Stability: Allan Variance			0.01	ppb	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	-1		+1	ppb	V <sub>cc</sub> , T <sub>A</sub> constant Measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> = 3.3V, and after 30 days of operation
	Aging Tolerance 1 Year	-0.1		+0.1	ppm	
Power Supply	Supply Voltage	3.14	+3.3	3.47	V	
	Current Consumption			500	mA	After warm up time@25°C
	Current Consumption during warm up			1250	mA	



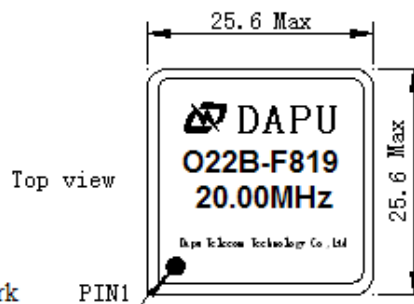
Phase Noise	Phase Noise		-110		dBc/Hz	10Hz
			-135			100Hz
			-145			1KHz
			-150			10KHz
			-152			100KHz
Environmental Conditions	Operable Temperature	-20		+70	°C	
	Storage Temperature	-40		+85	°C	
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz~500Hz, one cycle per 30 min, test 2 hour. (3 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	OUTPUT
2	GND
3	Nc
4	Nc
5	Vcc

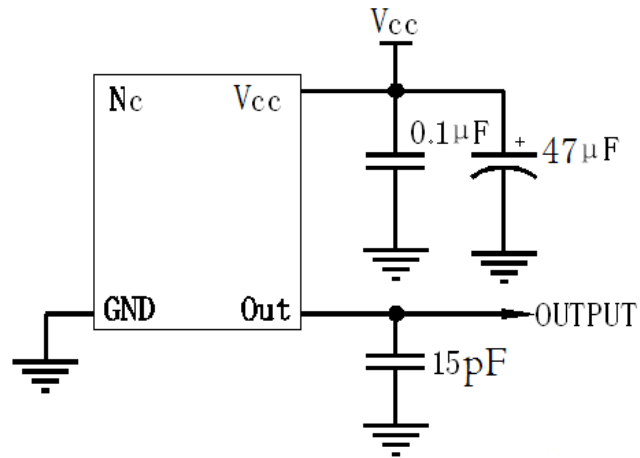
\*Tolerance ±0.2mm without mark



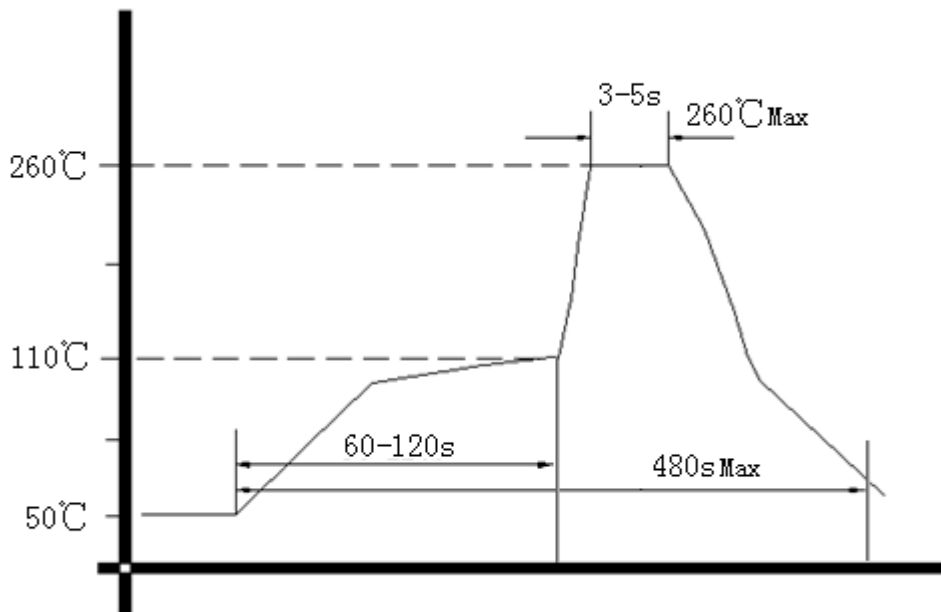
Note: Referential Weight 8.4g



### 3、 Test Circuit



### 4、 Wave Soldering Curve (RoHS)



### 5、 Package: PVC Tube, 9pcs

