

1. Device Name VC-TCXO
2. Model Name DSA321SDA
3. Nominal Frequency 10.000 MHz
4. Mass 0.03g max.
5. Absolute Maximum Ratings

	Item	Symbol	Rating	unit
1	Supply Voltage	V _{CC}	-0.3 ~ +6.0	V
2	Storage Temperature Range	T _{STG}	-40 ~ +85	°C

6. Recommended Operating Conditions

	Item	Symbol	min.	typ.	max.	unit
1	Supply Voltage	V _{CC}	+3.135	+3.3	+3.465	V
2	Load Impedance (resistance part) (parallel capacitance)	L _{oad_R}	0.9	1	1.1	kΩ
		L _{oad_C}	4.5	5	5.5	pF
3	Control Voltage Range	V _{CONT}	+0.5	+1.5	+2.5	V
4	Operable Temperature Range	T _{OPR}	-40	-	+85	°C

7. Electrical Characteristics

(T_A=-40 ~ +85°C, Load=1kΩ/5pF, V_{CC}=+3.3V, V_{CONT}=+1.5V unless otherwise noted)

	Item	Conditions	Limits			unit	Notes
			min.	typ.	max.		
1	Current Consumption		-	-	1.5	mA	
2	Output Level		0.8	-	-	V _{P-P}	1
3	Symmetry	GND level(DC cut)	40/60	-	60/40	%	
4	Frequency Stability						
	1.Tolerance	After 2 times reflow	-	-	±1.5	ppm	2,3
	2.vs Temperature	T _A =-30 ~ +85°C V _{CONT} =+1.5V			±0.5	ppm	4
		T _A =-40 ~ +85°C V _{CONT} =+1.5V			±1.0	ppm	4
	3.vs Supply Voltage	V _{CC} =+3.3V±5%	-	-	±0.2	ppm	
4.vs Load Variation	Load=(1kΩ/5pF)±10%	-	-	±0.2	ppm		
	5.vs Aging	T _A =Room ambient	-	-	±1.0	ppm/year	
5	Start up	@90% of final V _{out} level	-	-	2.0	ms	
6	Frequency Control						
	1.Control Range	V _{CONT} =1.5±1.0V (Ref:+1.5V)	±9.0	-	±15.0	ppm	5
	2.Input Resistance		500	-	-	kΩ	
7	SSB Phase Noise	Relative to F0 level offset 10Hz	-	-	-95	dBc/Hz	
		Relative to F0 level offset 100Hz	-	-	-115	dBc/Hz	
		Relative to F0 level offset 1kHz	-	-	-135	dBc/Hz	
		Relative to F0 level offset 10kHz	-	-	-145	dBc/Hz	
		Relative to F0 level offset 100kHz	-	-	-145	dBc/Hz	
		Relative to F0 level offset 1MHz	-	-	-150	dBc/Hz	

Notes

1. Clipped sine wave (DC-coupled)
2. Ref. to Nominal Frequency
3. Please leave after reflow in 2-hour or more at room ambient.
4. Ref to frequency(T_A=25°C)
5. Positive slope (Frequency becomes high in proportion to frequency control voltage.)

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