1. Device Name TCXO
2. Model Name DSB321SCA
3. Nominal Frequency 52.000 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}	+2.85	+3.0	+3.15	V
2	Load Impedance (resistance part)	Z_{LR}	9	10	11	kΩ
	(parallel capacitance)	Z_{LC}	9	10	11	pF
3	Operable Temperature Range	T_A	-30	-	+85	°C

7. Electrical Characteristics

(T_A =-30 ~ +85 °C, Load=10kΩ//10pF, V_{CC}=+3.0V, unless otherwise noted)

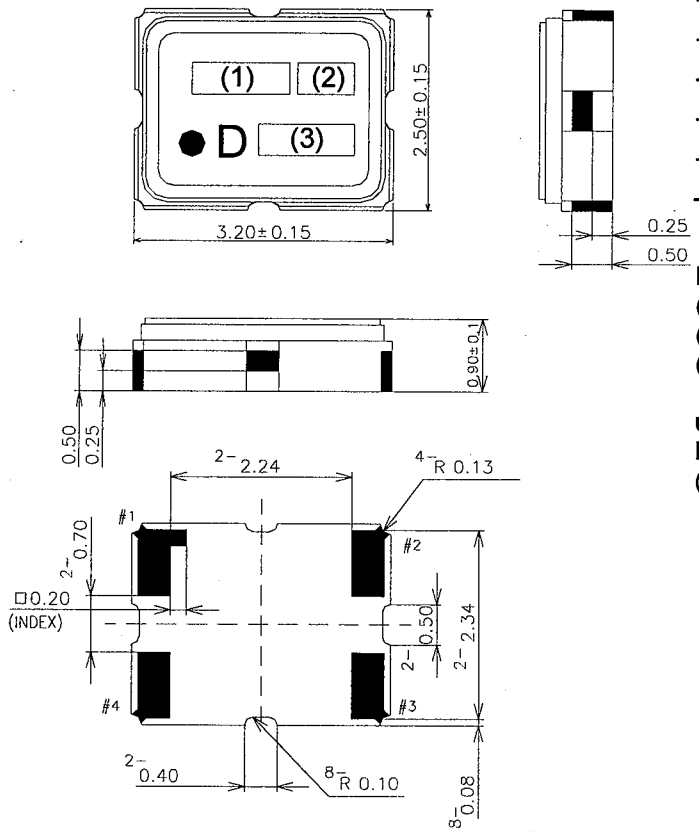
	Item	Conditions	Limits			unit	Notes
			min.	typ	max.		
1	Current Consumption		-	-	2.0	mA	
2	Output Level		0.8	-	-	V_{p-p}	1
3	Symmetry	GND level(DC cut)	40/60	-	60/40	%	
4	Frequency Stability						
	1.Tolerance	After 2 times reflow Ref. to Nominal Frequency	-	-	±1.5	ppm	2
	2.vs Temperature	T_A=-30 ~ +85 °C Ref. to Frequency(T_A=+25°C)	-	-	±2.0	ppm	
	3.vs Supply Voltage	V_{CC}=+3.0V±0.15V	-	-	±0.2	ppm	
	4.vs Load Variation	Load=(10kΩ//10pF)±10%	-	-	±0.2	ppm	
	5.vs Aging	T_A=Room ambient	-	-	±1.0	ppm/year	
5	Start up	@90% of final Vout level	-	-	2.0	ms	

Notes
1. Clipped sine wave (DC-coupled)
2. Please leave after reflow in 2-hour or more at room ambient.

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TCXO SPECIFICATION			
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8. Outline, Pin Connections

Outline



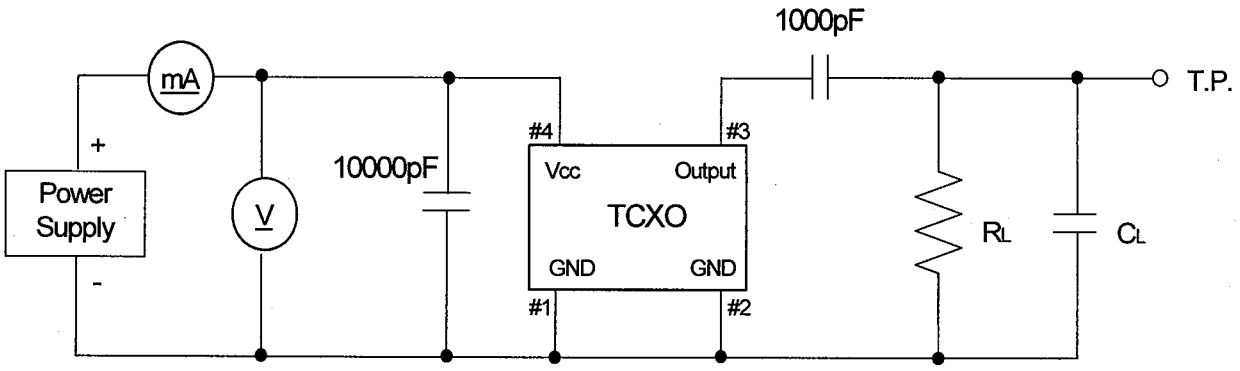
Pin Connections

Pin No.	Connection
#1	GND
#2	GND
#3	OUTPUT
#4	Vcc

Marking
(1) Frequency 52.00(MHz, 4digits)
(2) Model code Q
(3) EIA Date code Year(1digit)+Week(2digits)
e.g. 2009/1/1 → 901

unit:mm
Dimensional Tolerance: ±0.15
(Unless otherwise noted)

9. Measurement Circuit



RL=10kΩ
CL=10pF (Include Jig stray capacitance)

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INSPECTION DATA

USER : Watchdata Commu.
Type : DSB321SCA
Freq. : 52.000 MHz

S.C.No. : ZC04369
Date : 2009.04.15

No.	Reference Frequency [MHz]	Frequency Stability [ppm]							Current Consumption [mA]	Output Level [V]
		Tolerance (Ref: Nominal Frequency)	vs. Temperature [°C] (Ref : +25°C)				vs. Supply Voltage			
			-30	0	+50	+85	Vcc: 3.0V±0.15V			peak to peak
1	52.000017	+ 0.32	+ 0.1	+ 0.3	- 0.3	+ 0.4	- 0.03 /+ 0.03		1.80	0.91
2	52.000019	+ 0.37	- 0.4	+ 0.1	- 0.1	+ 0.2	- 0.03 /+ 0.03		1.79	0.90
3	52.000011	+ 0.22	- 0.4	- 0.1	- 0.2	+ 0.1	- 0.04 /+ 0.03		1.79	0.89
4	52.000020	+ 0.39	- 0.9	- 0.4	- 0.1	- 0.5	- 0.04 /+ 0.03		1.80	0.89
5	52.000007	+ 0.14	- 0.1	- 0.3	+ 0.2	+ 0.4	- 0.04 /+ 0.04		1.78	0.89
6	52.000017	+ 0.32	- 0.5	+ 0.1	- 0.2	+ 0.3	- 0.04 /+ 0.04		1.79	0.91
7	52.000011	+ 0.21	- 0.6	- 0.2	- 0.2	- 0.2	- 0.04 /+ 0.04		1.78	0.91
8	52.000011	+ 0.21	- 0.8	- 0.3	+ 0.2	+ 0.3	- 0.04 /+ 0.04		1.79	0.89
9	52.000014	+ 0.27	- 0.8	- 0.3	- 0.1	+ 0.2	- 0.05 /+ 0.04		1.78	0.89
10	52.000016	+ 0.31	- 0.5	+ 0.2	+ 0.2	+ 0.3	- 0.04 /+ 0.03		1.79	0.92

Remarks :
Ta=+25°C,Load=10kΩ// 10pF,Vcc=+3.0V unless otherwise noted.

Equipment:
Oscilloscope Agilent 54616B
Probe TEK P6205

Approve	Check	Test
T. Matsumoto	Y. Matsui	K. Yasuda

DAISHINKU CORP.