1. Device Name RFID TCXO
2. Model Name DSB221SCM
3. Nominal Frequency 16.000 MHz
4. Mass 0.02g 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}	+2.36	+2.5	+2.64	V
2	Load Impedance (resistance part)	L_{OAD}_R	4.5	5	5.5	kΩ
	(parallel capacitance)	L_{OAD}_C	36	40	44	pF
3	Operating Temperature Range	$T_{_OPR}$	-40	-	+85	°C

7. Electrical Characteristics

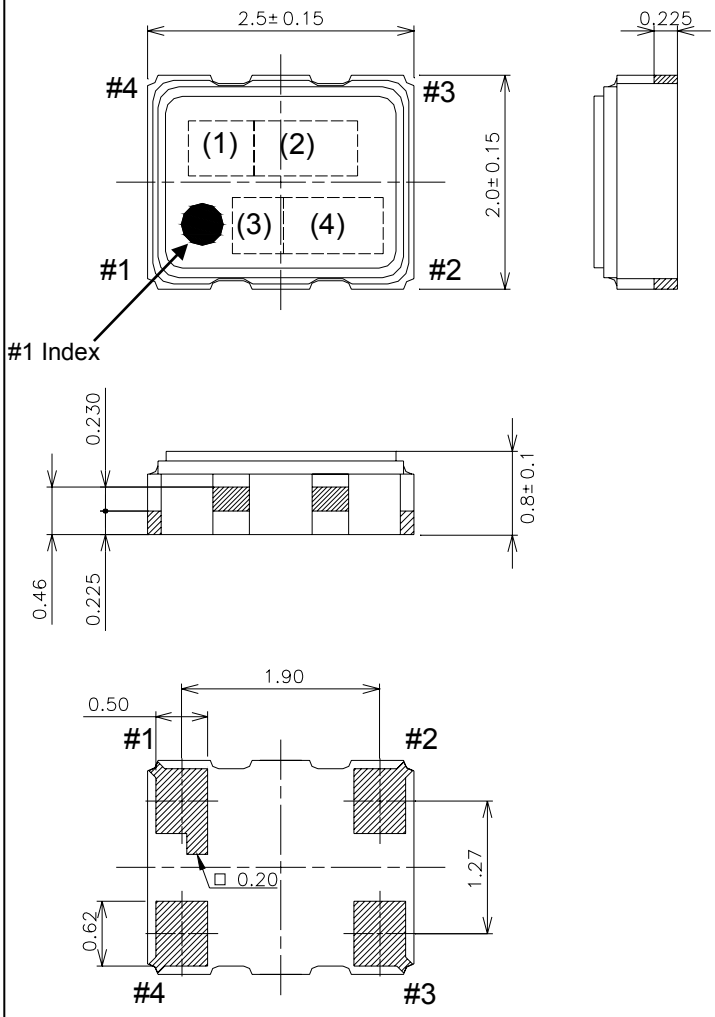
(T_A=-40~+85°C, L_{OAD}_R//C=5kΩ//40pF, V_{CC}=+2.5V, unless otherwise noted)

	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	Harmonics		-	-	-5	dBc	
5	Frequency Stability 1.Tolerance	After 2 times reflow Ref. to Nominal Frequency	-	-	±1.5	ppm	2,3
	2.vs Temperature	T_A=-40~+85°C Ref. to Frequency (T_A=+25°C)	-	-	±2.0	ppm	4
	3.vs Supply Voltage	V_{CC}=+2.5V±5%	-	-	±0.2	ppm	
	4.vs Load Variation	L_{OAD}_R//C=(5kΩ//40pF)±10%	-	-	±0.2	ppm	
	5.vs Aging	T_A=Room ambient	-	-	±1.0	ppm/year	
6	Start Up Time	@90% of final Vout level	-	-	2.0	ms	
7	SSB Phase Noise	Relative to f0 level offset 1kHz	-	-	-130	dBc/Hz	

Notes
1. Clipped sine wave (DC-coupled)
2. T_A=+25°C
3. Please leave after reflow in 2h or more at room ambient.

8. Outline, Pin Connections

Outline



Pin Connections

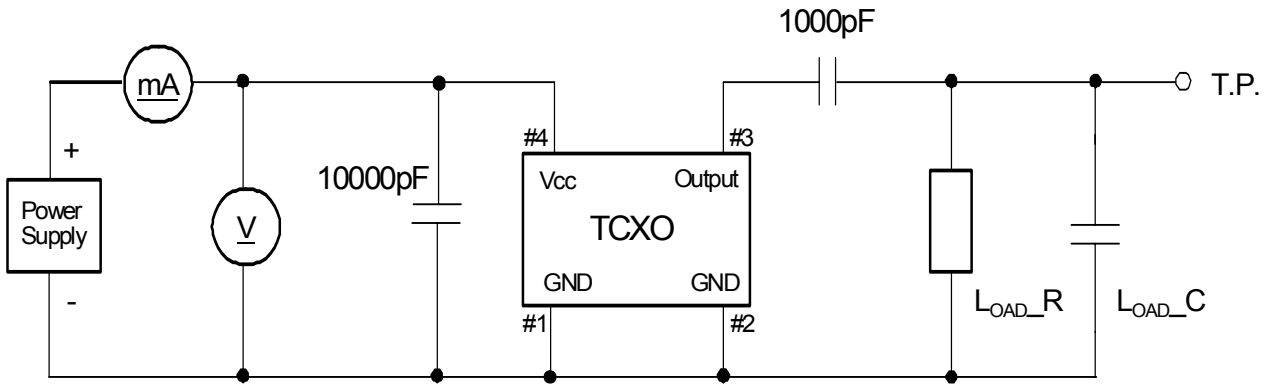
Pin No.	Connection
#1	GND
#2	GND
#3	Output
#4	V_{CC}

Marking

(1) Model code H
(2) Frequency 16.0 (MHz, 3digits)
(3) Logo D
(4) Date code Year (1digit) +Week (2digits)
e.g.2012/1/1 → 201

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

9. Measurement Circuit



L_{OAD}_R=5kΩ

L_{OAD}_C=40pF (Include Jig stray capacitance)

TITLE	Remark		
DSB221SDA TYPE SPECIFICATION			
Date	Spec. No.	Rev.	Page
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