1. Device Name TCXO
2. Model Name DSB321SDN
3. Nominal Frequency 12.288 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)	L_{OAD}_R	9	10	11	kΩ
	(parallel capacitance)	L_{OAD}_C	9	10	11	pF
3	Operable Temperature Range	$T_{\_OPR}$	-30	-	+85	°C

7. Electrical Characteristics

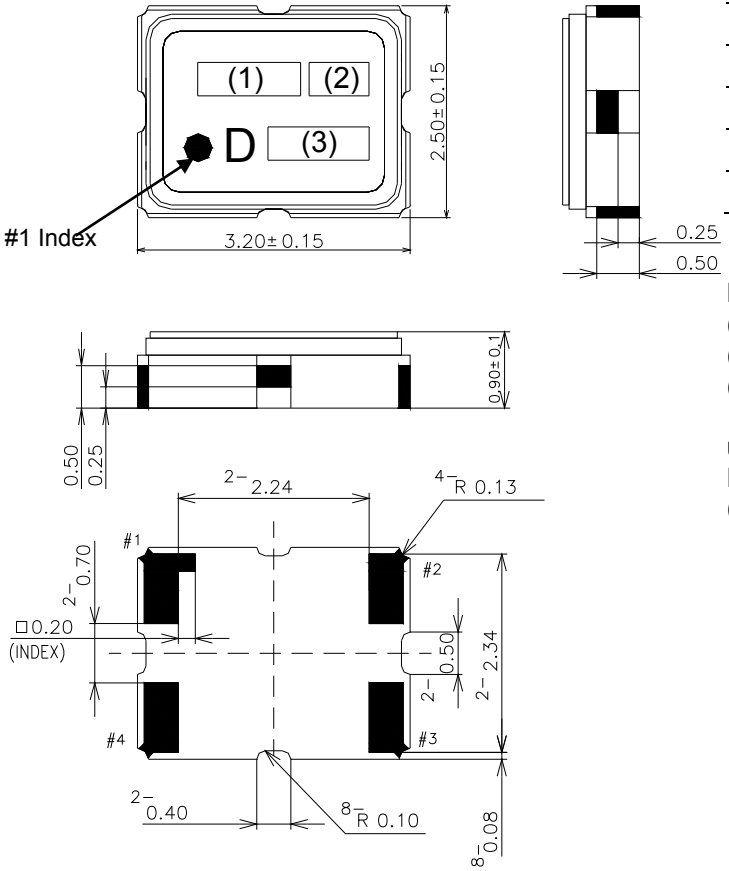
(T_A=-30 ~ +85°C, L_{OAD}_R//C=10kΩ//10pF, V_{CC}=+3.0V, unless otherwise noted)

	Item	Conditions	Limits			unit	Notes
			min.	typ.	max.		
1	Current Consumption		-	-	1.4	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	-	-	±2.0	ppm	4
	3.vs Supply Voltage	V_{CC}=+3.0V±5%	-	-	±0.2	ppm	
	4.vs Load Variation	L_{OAD}_R//C=(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	
6	SSB Phase Noise	Relative to F0 level offset 1kHz	-	-	-125	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)

8. Outline, Pin Connections

Outline



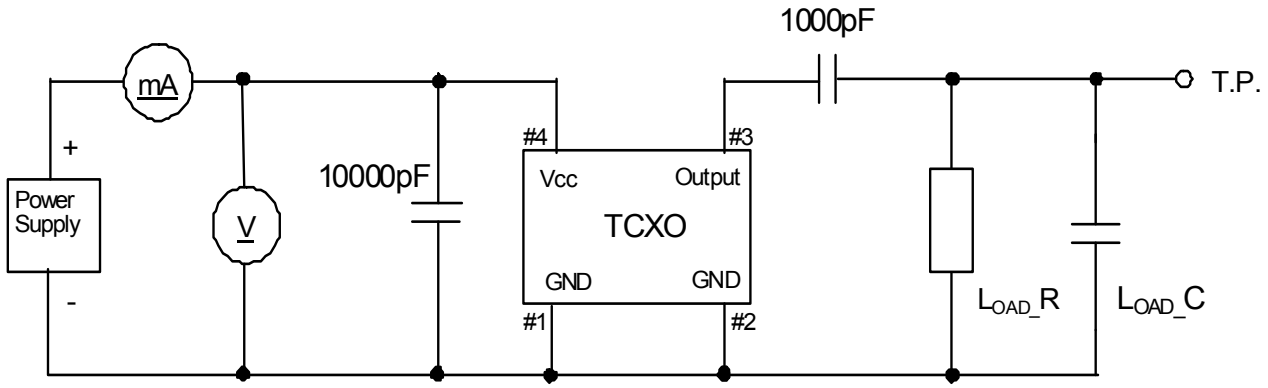
Pin Connections

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

Marking
(1) Frequency 12.28(MHz, 4digits)
(2) Model code BN
(3) EIA Date code Year(1digit)+Week(2digits)
e.g. 2015/1/1 → 501

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

9. Measurement Circuit



L_{OAD}_R=10kΩ
L_{OAD}_C=10pF (Include Jig stray capacitance)

TITLE	Remark		
TCXO SPECIFICATION			
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