1. Device Name TCXO
2. Model Name DSB535SD
3. Nominal Frequency 10.000 MHz
4. Weight 0.08g max.
5. Absolute Maximum Value

	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)	L_{oad}_R	9	10	11	kΩ
	(parallel capacitance)	L_{oad}_C	9	10	11	pF
3	Operable Temperature Range	$T_{_OPR}$	-40	–	+85	°C

7. Electrical Characteristics

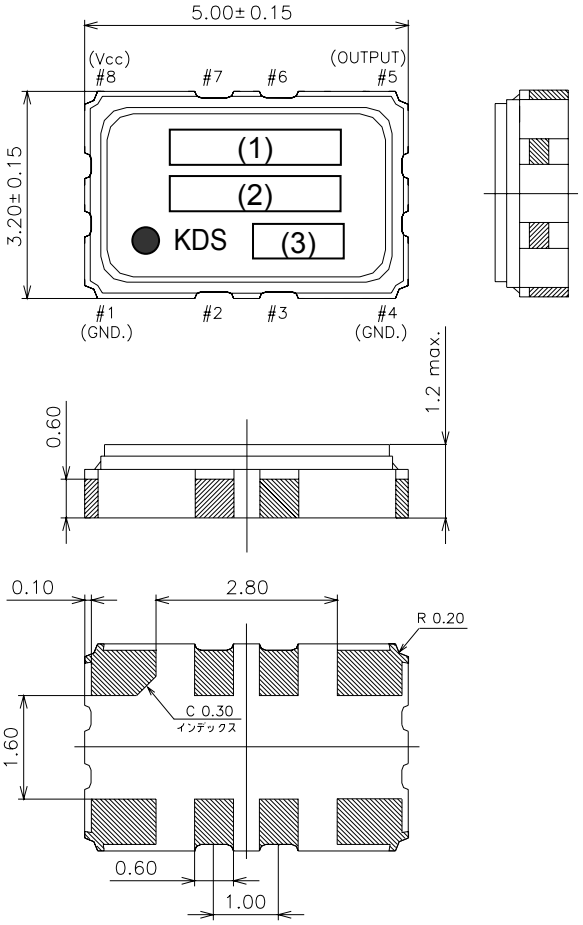
(T_A =-40 ~ +85 °C, L_{oad}_R//C=10kΩ//10pF,V_{CC}=+3.3V unless otherwise noted)

	Item	Conditions	Limits			Unit	Notes
			min.	typ.	max.		
1	Current consumption		–	–	1.6	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(T_A = +25 °C)	–	–	±1.5	ppm	2,3
	2.vs Temperature	T_A =-40 ~ +85 °C	–	–	±1.0	ppm	4
	3.vs Slope	T_A =-30 ~ +85 °C	–	–	±0.2	ppm/°C	5
		T_A =-40 ~ -30 °C	–	–	±0.4	ppm/°C	5
	4.vs Supply Voltage	V_{CC}=+3.3V±5%	–	–	±0.2	ppm	
	5.vs Load Variation	L_{oad}_R//C =(10kΩ//10pF) ±10%	–	–	±0.2	ppm	
	6.vs. Aging	T_A= Room ambient	–	–	±1.0	ppm/year	
6	Start up	@90% of Final Vout level	–	–	2.0	ms	
7	SSB Phase Noise	Relative to F0 Level Offset 10Hz	–	–	-80	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	

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. 1 Frequency reading for every 2°C

8. Outline, Pin Connections

Outline



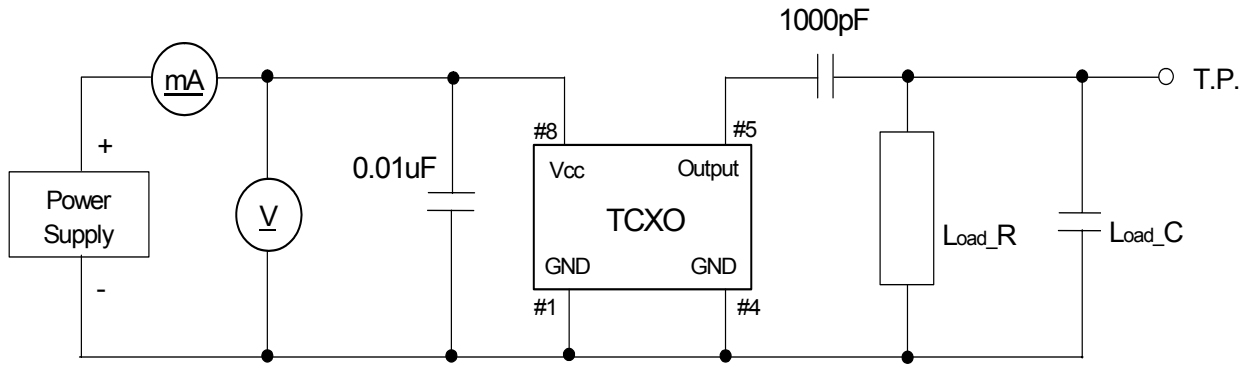
Pin Connections

Pin No.	Connection
#1	GND
#2	N.C.
#3	N.C.
#4	GND.
#5	OUTPUT
#6	N.C.
#7	N.C.
#8	Vcc

Marking
(1) Frequency XXXXX(kHz, 5digits)
(2) Model code "B535SD"
(3) EIA Date code Year(1digit)+Week(2digits)
e.g. 2008/1/1 → 801

Unit:[mm]
Dimensional Tolerance:+/-0.15
(Unless otherwise noted)

9. Measurement Circuit



Load_R=10kΩ
Load_C=10pF (Include Jig stray capacitance)

TITLE	Remark		
TCXO SPECIFICATION			
Date	Spec. No.	Rev.	Page
2008/11/07	ZC03677	-	2/2