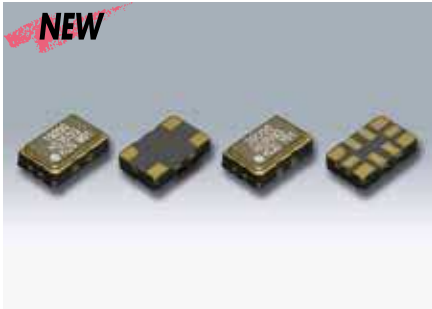


Ultra High-precision SMD VC-TCXO/TCXO

DSA535SG/DSB535SG

for Stratum3/ Femtocell



Actual size

■ Features

- 5032 size. 1.35mm high miniature TCXO (0.024cc · 0.08g)
- Wide voltage range. Supply voltage up to +2.7~+5.5V
- Clipped-sine wave or CMOS level output
- Low phase noise
- Single packaged structure
- Moisture Sensitivity Level: LEVEL 1 (IPC/JEDEC J-STD-033)
- 10 terminals or 4 terminals

■ Applications

- Stratum3/ Femtocell/ Industrial radio communications



■ Standard Specification

Item	DSA535SG(VC-TCXO)		DSB535SG(TCXO)		
	Output Frequency Range	10~40MHz			
Standard Frequency	10/ 12.8/ 19.2/ 19.44/ 20/ 38.88MHz				
Supply Voltage(Vcc)	+3.0V/ +3.3V/ +5.0V				
Current Consumption	10 ≤ F ≤ 20MHz	+2.0mA max.	+3.5mA max.	+2.0mA max.	+3.5mA max.
	20 < F ≤ 40MHz	+2.5mA max.	+5.0mA max.	+2.5mA max.	+5.0mA max.
Output Level	Clipped sine wave 0.8Vp-p min. (DC-coupled)	CMOS '0'level 0.1 × Vcc V max. '1'level 0.9 × Vcc V max.	Clipped sine wave 0.8Vp-p min. (DC-coupled)	CMOS '0'level 0.1 × Vcc V max. '1'level 0.9 × Vcc V max.	
Output Load	10kΩ//10pF	15pF	10kΩ//10pF	15pF	
Frequency Stability Tolerance	±1.5 × 10 ⁻⁶ max.(After 2 reflows)				
vs. Temperature	±0.28 × 10 ⁻⁶ max./ -40~+85°C				
vs. Hysteresis	±0.10 × 10 ⁻⁶ max./ -10~+70°C (Option)				
vs. Supply Voltage	±0.10 × 10 ⁻⁶ max.				
vs. Load Variation	±0.20 × 10 ⁻⁶ max.(Vcc ± 5%)				
vs. Aging	±0.20 × 10 ⁻⁶ max.(10kΩ//10pF ± 10%)				
Frequency Control	±1.0 × 10 ⁻⁶ max. /year				
Control Sensitivity	± 3.0 × 10 ⁻⁶ ~ ± 5.0 × 10 ⁻⁶ / Vcont = +1.5V ± 1V		—		
Response Slope	± 3.0 × 10 ⁻⁶ ~ ± 5.0 × 10 ⁻⁶ / Vcont = +2.5V ± 2V (O.P.Vcc = 5V)		—		
Phase Noise	Offset 100Hz	Offset 1kHz	Offset 10kHz	Offset 100kHz	
	10 ≤ F ≤ 20MHz	-118dBc/Hz	-138dBc/Hz	-150dBc/Hz	-152dBc/Hz
20 < F ≤ 40MHz	-110dBc/Hz	-132dBc/Hz	-148dBc/Hz	-150dBc/Hz	
Packing Unit	1000pcs./reel(φ 180), 4000pcs./reel(φ 330)				

Consult our sales representative for other specifications.

■ DSA535SG (4 terminals)

■ Dimensions [mm]

Model Code
A : VC-TCXO (DSA535SG)
B : TCXO (DSB535SG)
Pin Connections (4 terminals)

Pin No.	Connection
#1	VCONT(VC-TCXO)/ GND(TCXO)
#2	GND
#3	OUTPUT
#4	Vcc

() Internal connection
*extra low phase noise mode with external VC_FILTER (Cvc=0.033uF)

■ Recommended Land Pattern [mm]

■ DSB535SG (10 terminals)

■ Dimensions [mm]

Model Code
A : VC-TCXO (DSA535SG)
B : TCXO (DSB535SG)
Pin Connections (10 terminals)

Pin No.	Connection
#1	Vcont(VC-TCXO)/GND(TCXO)
#2	GND(N.C.)
#3	ENABLE/DISABLE
#4	GND
#5	GND(N.C.)
#6	Output
#7	N.C./ VC_FILTER*
#8	GND(N.C.)
#9	Vcc
#10	GND(N.C.)

() Internal connection
*extra low phase noise mode with external VC_FILTER (Cvc=0.033uF)

■ Recommended Land Pattern [mm]

*Option VC_Filter Capacitance Connect to GND
By-pass Capacitance Connect to GND
DC-cut Capacitance Connect to Test Point