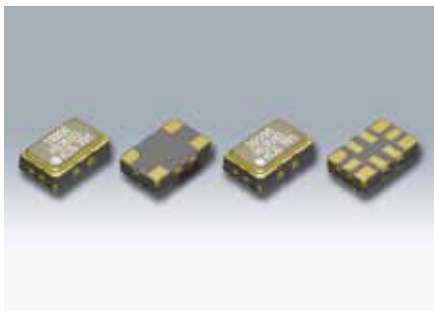


Ultra High-precision SMD VC-TCXO/TCXO

DSA535SG/DSB535SG for Stratum3/ Femtocell



Actual size

Features

- 5032 size. 1.35mm height. Miniature (VC-) TCXO (0.024cc·0.08g)
- Wide voltage range. Supply voltage up to +2.7 to +5.5V
- Clipped-sine wave or CMOS level output
- Low phase noise
- Single packaged structure
- 10 terminals or 4 terminals

Applications

- Stratum3/ Femtocell/ Industrial radio communications



Standard Specification

Item	DSA535SG (VC-TCXO)		DSB535SG (TCXO)	
	Output Frequency Range	10 to 40MHz		
Standard Frequency	10MHz/ 12.8MHz/ 19.2MHz/ 19.44MHz/ 20MHz/ 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.	+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
Frequency Stability Tolerance	±1.5 × 10 ⁻⁶ max. (After 2 reflows)			
vs. Temperature	±0.28 × 10 ⁻⁶ max./ -40 to +85°C			
vs. Hysteresis	±0.10 × 10 ⁻⁶ max./ -10 to +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 to ±5.0 × 10 ⁻⁶ / Vcont = +1.5V ± 1V		—	
Response Slope	±3.0 × 10 ⁻⁶ to ±5.0 × 10 ⁻⁶ / Vcont = +2.5V ± 2V (O.P.VCC = 5V)		—	
Phase Noise	[10MHz ≤ f ≤ 20MHz]		[20MHz < f ≤ 40MHz]	
	Offset 100Hz		-110dBc/Hz	
	Offset 1kHz		-132dBc/Hz	
	Offset 10kHz		-148dBc/Hz	
	Offset 100kHz		-150dBc/Hz	
Packing Unit (1)	1000pcs./reel (φ 180), 4000pcs./reel (φ 330)			

(1) Moisture prevention packing is unnecessary.
Moisture Sensitivity Level: LEVEL 1 (IPC/JEDEC J-STD-033)

Consult our sales representative for other specifications.

DSA535SG/DSB535SG (4 terminals)

DSA535SG/DSB535SG (10 terminals)

Dimensions

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

Recommended Land Pattern

<Top View>

Dimensions

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=0.033μF)

Recommended Land Pattern

<Top View>

Option VC_Filter Capacitance
Connect to GND
Bypass Capacitance
Connect to Test Circuit
DC-cut Capacitance