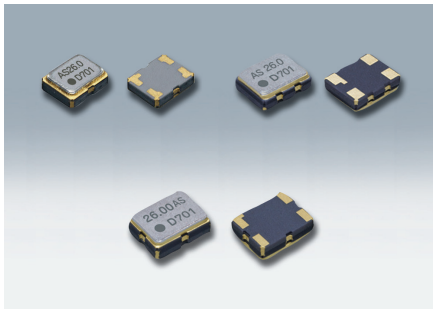


High-precision SMD VC-TCXO/TCXO

DSA211SSA/DSA221SSA/DSA321SSA
DSB211SSA, DSB211SSB/DSB221SSA, DSB221SSB/DSB321SSA, DSB321SSB



Actual size DSA211SSA DSA221SSA
DSA321SSA

Features

- Low voltage operation
- Low phase noise
- Single package structure

Applications

- Mobile phones
- GPS/GNSS and Industrial radio communications



[Type]

VC-TCXO	TCXO	TCXO (Stand-by Function)	Size
DSA211SSA	DSB211SSA	DSB211SSB	2016 size
DSA221SSA	DSB221SSA	DSB221SSB	2520 size
DSA321SSA	DSB321SSA	DSB321SSB	3225 size

Standard Specification

Item	Type	VC-TCXO			TCXO					
		DSA211SSA	DSA221SSA	DSA321SSA	DSB211SSA	DSB221SSA	DSB321SSA	DSB211SSB (Stand-by Function)	DSB221SSB (Stand-by Function)	DSB321SSB (Stand-by Function)
Frequency Range		12.288 to 52MHz	10 to 52MHz		12.288 to 52MHz	10 to 52MHz		12.288 to 52MHz	10 to 52MHz	
Standard Frequency		26MHz/38.4MHz/52MHz								
Supply Voltage Range		+1.62 to +3.63V								
Supply Voltage (Vcc)		+1.8V/+2.5V/+2.8V/+3.3V								
Current Consumption		+1.8mA max.(f≤20MHz) / +2.2mA max.(20MHz< f)			+1.6mA max.(f≤20MHz) /+2.2mA max.(20MHz< f)					
Stand-by Current (#1 pin "L" Level)		-						+2μA max.		
Output Level		0.8Vp-p min. (f≤52MHz) (Clipped Sinewave/DC-coupled)								
Output Load		10kΩ//10pF								
Frequency Stability Tolerance		±1.5×10 ⁻⁶ max. (After 2 reflows)								
vs. Temperature		±2.0×10 ⁻⁶ max./-30 to +85°C ±2.0×10 ⁻⁶ max./-40 to +85°C (Option)								
vs. Supply Voltage		±0.2×10 ⁻⁶ max. (Vcc ±5%)								
vs. Load Variation		±0.2×10 ⁻⁶ max. (10kΩ//10pF±10%)								
vs. Aging		±1.0×10 ⁻⁶ max./year								
Frequency Control Control Sensitivity		±3.0×10 ⁻⁶ to ±5.0×10 ⁻⁶ /Vcont=+1.4V±1V @Vcc≥+2.6V ±3.0×10 ⁻⁶ to ±5.0×10 ⁻⁶ /Vcont=+0.9V±0.6V @Vcc=+1.8V			-					
Response Slope		Positive			-					
Start up Time		2.0ms max.								
Output Enable Time		-						2.0ms max.		
Phase Noise		[f≤15MHz]			[15MHz<f≤26MHz]			[26MHz<f≤52MHz]		
Offset 100Hz		-115dBc/Hz			-110dBc/Hz			-105dBc/Hz		
Offset 1kHz		-135dBc/Hz			-130dBc/Hz			-125dBc/Hz		
Offset 10kHz		-150dBc/Hz			-150dBc/Hz			-145dBc/Hz		
Offset 100kHz		-155dBc/Hz			-155dBc/Hz			-150dBc/Hz		
Packing Unit (1)		DSA211SSA/DSA221SSA, DSB211SSA, DSB211SSB/DSB221SSA, DSB221SSB: 3000pcs./reel (φ180) DSA321SSA, DSB321SSA, DSB321SSB: 2000pcs./reel (φ180)								

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

Consult our sales representative for other specifications.

High-precision SMD VC-TCXO/TCXO

For Mobile communications/Industrial system/GPS/GNSS

■ Dimensions

[mm]

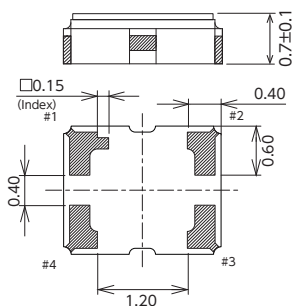
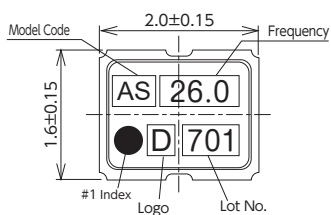
■ DSA211SSA/DSB211SSA/DSB211SSB

Model Code

AS : VC-TCXO (DSA211SSA)
BS : TCXO (DSB211SSA)
CS : TCXO (DSB211SSB Stand-by Function)

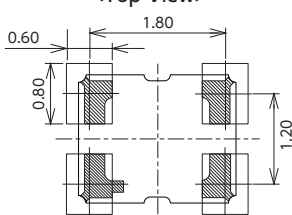
Pin Connections

Pin No.	Connection
#1	Vcont(VC-TCXO)/GND(TCXO) ENABLE/DISABLE (Stand-by Function)
#2	GND
#3	Output
#4	Vcc



■ Recommended Land Pattern

<Top View>



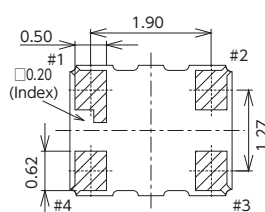
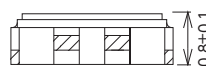
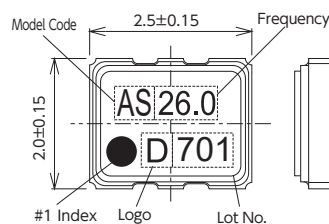
■ DSA221SSA/DSB221SSA/DSB221SSB

Model Code

AS : VC-TCXO (DSA221SSA)
BS : TCXO (DSB221SSA)
CS : TCXO (DSB221SSB Stand-by Function)

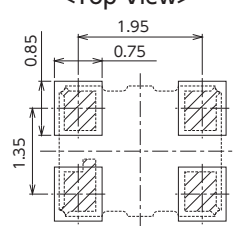
Pin Connections

Pin No.	Connection
#1	Vcont(VC-TCXO)/GND(TCXO) ENABLE/DISABLE (Stand-by Function)
#2	GND
#3	Output
#4	Vcc



■ Recommended Land Pattern

<Top View>



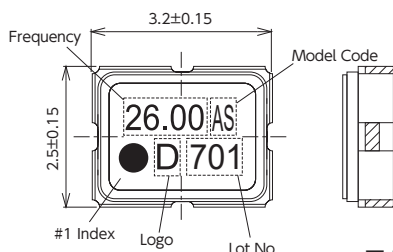
■ DSA321SSA/DSB321SSA/DSB321SSB

Model Code

AS : VC-TCXO (DSA321SSA)
BS : TCXO (DSB321SSA)
CS : TCXO (DSB321SSB Stand-by Function)

Pin Connections

Pin No.	Connection
#1	Vcont(VC-TCXO)/GND(TCXO) ENABLE/DISABLE (Stand-by Function)
#2	GND
#3	Output
#4	Vcc



■ Recommended Land Pattern

<Top View>

