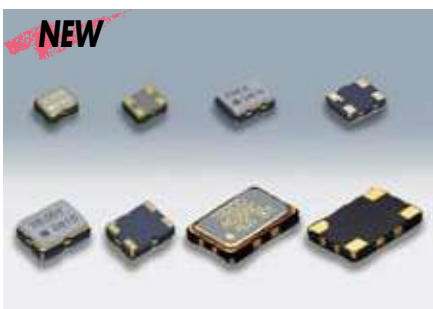


SMD VC-TCXO/TCXO

DSA211SCL/DSA221SCL/DSA321SCL/DSA535SC
DSB211SCL/DSB221SCL/DSB321SCL/DSB211SCB/DSB221SCB/DSB321SCB/DSB535SC



Actual size DSA211SCL DSA221SCL DSA321SCL DSA535SC

■ Features

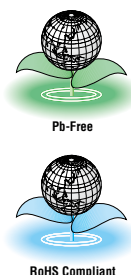
- Low supply voltage
- Low phase noise
- Single packaged structure
- Prevention of moisture packing is unnecessary.
Moisture Sensitivity Level: LEVEL 1
(IPC/JEDEC J-STD-033)

■ Applications

- Mobile phones (W-CDMA, CDMA2000, TD-SCDMA, GSM, GPRS, Mobile W-PHS)
- Other wireless radio communications (WiMAX)
- GPS

[Type]

VC-TCXO	TCXO	TCXO (Stand-by Function)	Size
DSA211SCL	DSB211SCL	DSB211SCB	2016 size
DSA221SCL	DSB221SCL	DSB221SCB	2520 size
DSA321SCL	DSB321SCL	DSB321SCB	3225 size
DSA535SC	DSB535SC	-	5032 size



■ Standard Specification

Item	Type	VC-TCXO				TCXO					
		DSA211SCL	DSA221SCL	DSA321SCL	DSA535SC	DSB211SCL	DSB221SCL	DSB321SCL	DSB211SCB (Stand-by Function)	DSB221SCB (Stand-by Function)	DSB321SCB (Stand-by Function)
Frequency Range		13~52MHz	9.6~52MHz	10~30MHz	13~52MHz	9.6~52MHz	13~52MHz	9.6~52MHz	10~30MHz		
Standard Frequency		13/19.2/20/26/38.4/40/52MHz	13/19.2/26MHz		13/19.2/20/26/38.4/40/52MHz				13/19.2/26MHz		
Operating Voltage Range		+1.7~+3.5V	+2.3~+5.5V		+1.7~+3.5V				+2.3~+5.5V		
Supply Voltage (Vdd)		+1.8V/ +2.6V/ +2.8V/ +3.0V/ +3.3V	+2.6V/ +2.8V/ +3.0V/ +3.3V		+1.8V/ +2.6V/ +2.8V/ +3.0V/ +3.3V				+2.6V/ +2.8V/ +3.0V/ +3.3V		
Current		+1.5mA max. (f≤26MHz)	+1.1mA max. (f≤15MHz)		+1.5mA max. (F≤26MHz)				+1.1mA max. (F≤15MHz)		
Consumption		+2.0mA max. (f>26MHz)	+1.3mA max. (f>15MHz)		+2.0mA max. (F>26MHz)				+1.3mA max. (F>15MHz)		
Stand-by current					1μA max.						
Output Level		0.8Vp-p min. (Clipped Sinewave / DC-coupled)									
Output Load		10kΩ//10pF									
Frequency Stability		±1.5×10 ⁻⁶ max. (After 2 reflows)									
vs. Temperature		±2.0×10 ⁻⁶ max./ -30~+85°C @CDMA									
vs. Supply Voltage		±0.2×10 ⁻⁶ max. (Vdd±5%)									
vs. Load Variation		±0.2×10 ⁻⁶ max. (10kΩ//10pF±10%)									
vs. Aging		±1.0×10 ⁻⁶ max. /year									
Frequency Control		±7.8×10 ⁻⁶ ~ ±12×10 ⁻⁶ / Vcont=+1.4V±1V @CDMA									
Control Sensitivity		±9.0×10 ⁻⁶ ~ ±15×10 ⁻⁶ / Vcont=+1.5V±1V @Vdd≥+2.6V									
Response Slope		Positive									
Start Up Time		2.0ms max.									
Output Enable Time		2.0ms max.									
Phase Noise		[f≤15MHz] [15<f≤26MHz] [26<f≤40MHz]	[f≤15MHz] [15MHz<f]	[f≤15MHz] [15<f≤26MHz] [26<f≤40MHz]	[f≤15MHz] [15MHz<f]	[f≤15MHz] [15<f≤26MHz] [26<f≤40MHz]	[f≤15MHz] [15MHz<f]	[f≤15MHz] [15MHz<f]	[f≤15MHz] [15MHz<f]	[f≤15MHz] [15MHz<f]	[f≤15MHz] [15MHz<f]
Offset 100Hz		-115dBc/Hz -110dBc/Hz -105dBc/Hz	-110dBc/Hz -105dBc/Hz	-115dBc/Hz -110dBc/Hz -105dBc/Hz	-110dBc/Hz -105dBc/Hz	-115dBc/Hz -110dBc/Hz -105dBc/Hz	-110dBc/Hz -105dBc/Hz	-115dBc/Hz -110dBc/Hz -105dBc/Hz	-110dBc/Hz -105dBc/Hz	-115dBc/Hz -110dBc/Hz -105dBc/Hz	-110dBc/Hz -105dBc/Hz
Offset 1kHz		-135dBc/Hz -130dBc/Hz -125dBc/Hz	-130dBc/Hz -125dBc/Hz	-135dBc/Hz -130dBc/Hz -125dBc/Hz	-130dBc/Hz -125dBc/Hz	-135dBc/Hz -130dBc/Hz -125dBc/Hz	-130dBc/Hz -125dBc/Hz	-135dBc/Hz -130dBc/Hz -125dBc/Hz	-130dBc/Hz -125dBc/Hz	-135dBc/Hz -130dBc/Hz -125dBc/Hz	-130dBc/Hz -125dBc/Hz
Offset 10kHz		-145dBc/Hz -140dBc/Hz -135dBc/Hz	-140dBc/Hz -135dBc/Hz	-145dBc/Hz -140dBc/Hz -135dBc/Hz	-140dBc/Hz -135dBc/Hz	-145dBc/Hz -140dBc/Hz -135dBc/Hz	-140dBc/Hz -135dBc/Hz	-145dBc/Hz -140dBc/Hz -135dBc/Hz	-140dBc/Hz -135dBc/Hz	-145dBc/Hz -140dBc/Hz -135dBc/Hz	-140dBc/Hz -135dBc/Hz
Offset 100kHz		-145dBc/Hz -145dBc/Hz -145dBc/Hz	-145dBc/Hz -145dBc/Hz	-145dBc/Hz -145dBc/Hz -145dBc/Hz	-145dBc/Hz -145dBc/Hz	-145dBc/Hz -145dBc/Hz -145dBc/Hz	-145dBc/Hz -145dBc/Hz	-145dBc/Hz -145dBc/Hz -145dBc/Hz	-145dBc/Hz -145dBc/Hz	-145dBc/Hz -145dBc/Hz -145dBc/Hz	-145dBc/Hz -145dBc/Hz
Packing Unit		2000pcs./reel (φ180)	4000pcs./reel (φ330)		2000pcs./reel (φ180)				4000pcs./reel (φ330)		

Consult our sales representative for other specifications.

SMD VC-TCXO/TCXO

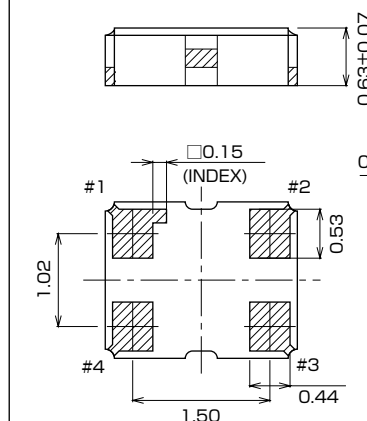
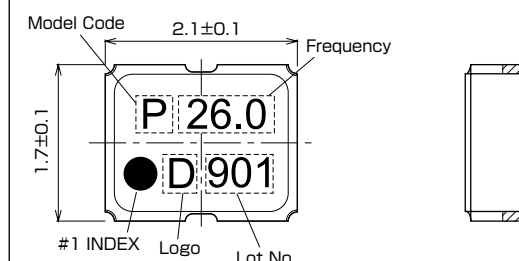
For Mobile communications / GPS / WiMAX

■ Dimensions [mm]

DSA211SCL/DSB211SCL/DSB211SCB

Model Code
P : VC-TCXO (DSA211SCL)
Q : TCXO (DSB211SCL)
S : TCXO (DSB211SCB Stand-by Function)

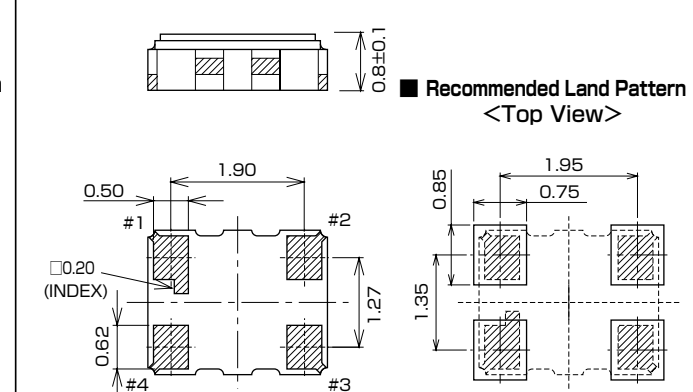
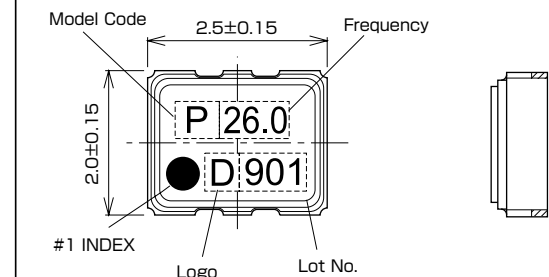
Pin No.	Connection
#1	Vcont (VC-TCXO) / GND (TCXO) ENABLE/DISABLE (Stand-by Function)
#2	GND
#3	Output
#4	Vdd



DSA221SCL/DSB221SCL/DSB221SCB

Model Code
P : VC-TCXO (DSA221SCL)
Q : TCXO (DSB221SCL)
S : TCXO (DSB221SCB Stand-by Function)

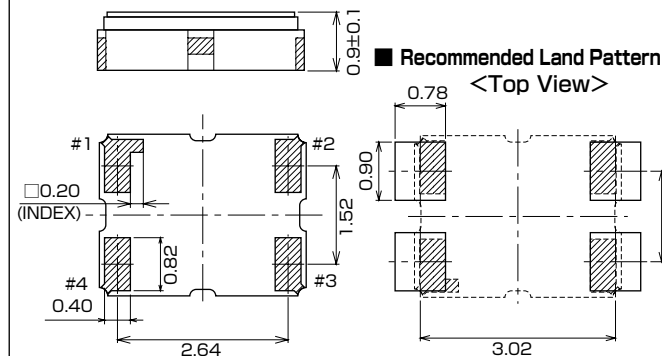
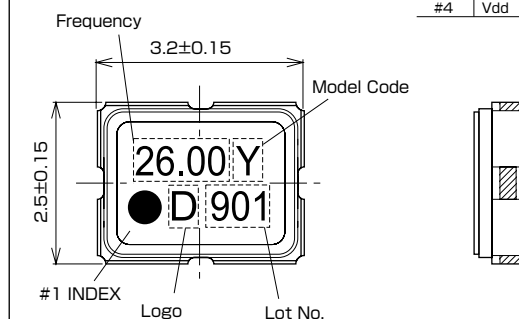
Pin No.	Connection
#1	Vcont (VC-TCXO) / GND (TCXO) ENABLE/DISABLE (Stand-by Function)
#2	GND
#3	Output
#4	Vdd



DSA321SCL/DSB321SCL/DSB321SCB

Model Code
Y : VC-TCXO (DSA321SCL)
Z : TCXO (DSB321SCL)
CB : TCXO (DSB321SCB Stand-by Function)

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



DSA535SC/DSB535SC

Model Code
A : VC-TCXO (DSA535SC)
B : TCXO (DSB535SC)

Pin No.	Connection
#1	Vcont (VC-TCXO) / GND (TCXO)
#2	GND
#3	Output
#4	Vdd

