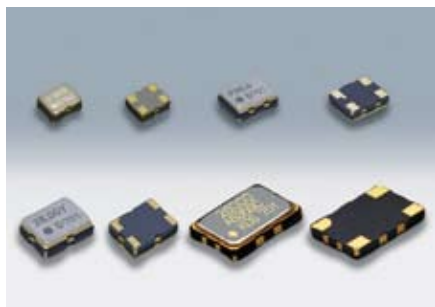


SMD VC-TCXO/TCXO

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



Actual size DSA211SCL DSA221SCL DSA321SCL DSA535SC

Features

- Low voltage operation
- 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)	DSB535SC		
Frequency Range	13~52MHz		9.6~52MHz		10~30MHz		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	
Supply Voltage Range	+1.7~+3.5V				+2.3~+5.5V		+1.7~+3.5V					+2.3~+5.5V	
Supply Voltage(Vcc)	+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	—							+3.0μA max.			—		
Output Level	0.8Vp-p min.(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~+85℃ @CDMA ±2.5×10 ⁻⁶ max./ -30~+85℃ @GSM												
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	±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 @Vcc≥+2.6V					—							
	±9.0×10 ⁻⁶ ~±15×10 ⁻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]	[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]	
Offset 100Hz	-115dBc/Hz	-110dBc/Hz	-105dBc/Hz	-110dBc/Hz	-105dBc/Hz	-115dBc/Hz	-110dBc/Hz	-105dBc/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	-130dBc/Hz	-125dBc/Hz	
Offset 10kHz	-145dBc/Hz	-140dBc/Hz	-135dBc/Hz	-145dBc/Hz	-140dBc/Hz	-145dBc/Hz	-140dBc/Hz	-135dBc/Hz	-145dBc/Hz	-140dBc/Hz	-145dBc/Hz	-140dBc/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	
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

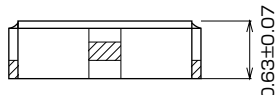
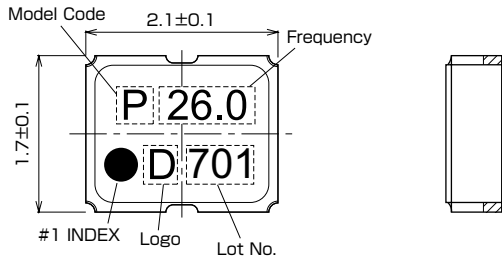
For Mobile communications / GPS / WiMAX

■ Dimensions[mm]

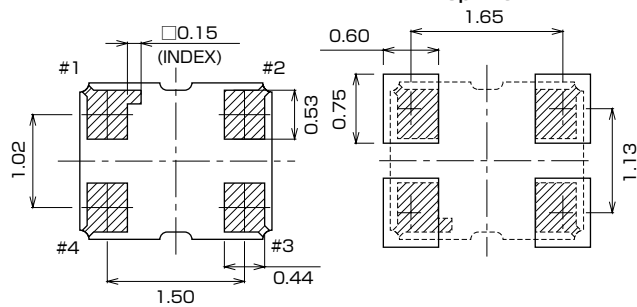
DSA211SCL/DSB211SCL/DSB211SCB

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

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



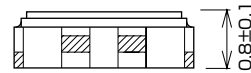
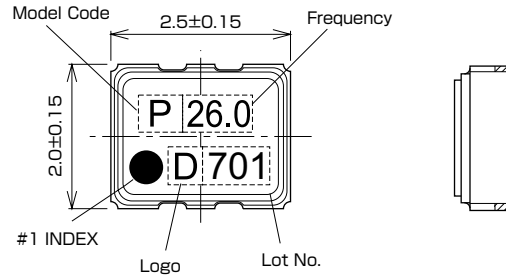
■ Recommended Land Pattern <Top View>



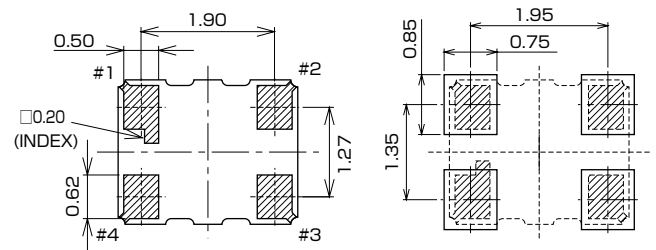
DSA221SCL/DSB221SCL/DSB221SCB

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



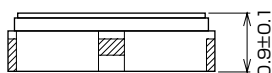
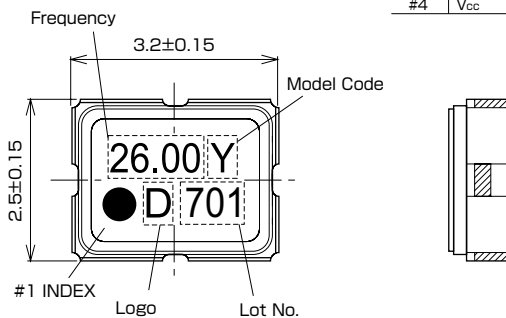
■ Recommended Land Pattern <Top View>



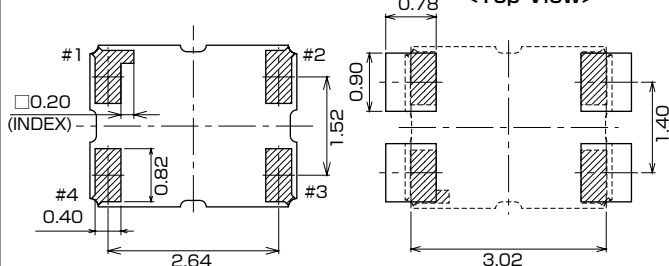
DSA321SCL/DSB321SCL/DSB321SCB

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



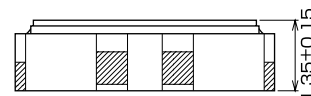
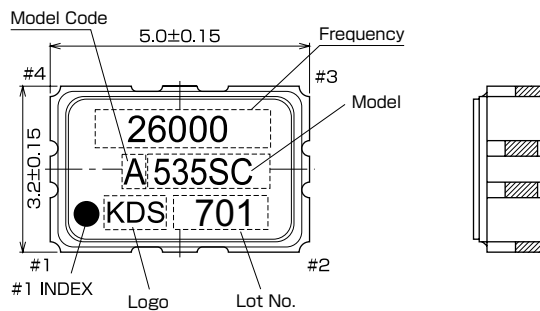
■ Recommended Land Pattern <Top View>



DSA535SC/DSB535SC

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

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



■ Recommended Land Pattern <Top View>

