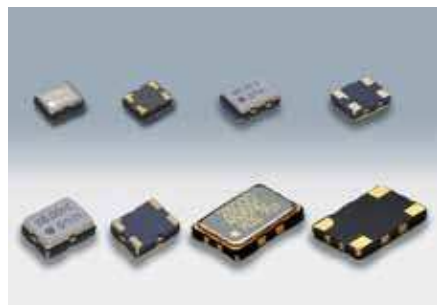


SMD VC-TCXO/TCXO

DSA211SCM/DSA221SCM/DSA321SCM/DSA535SC

DSB211SCB/DSB221SCB/DSB321SCB/DSB535SC



Actual size DSA211SCM DSA221SCM DSA321SCM 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
DSA211SCM	DSB211SCB	DSB211SCB	2016 size
DSA221SCM	DSB221SCB	DSB221SCB	2520 size
DSA321SCM	DSB321SCB	DSB321SCB	3225 size
DSA535SC	DSB535SC	-	5032 size

■ Standard Specification

Type	VC-TCXO				TCXO							
Item	DSA211SCM	DSA221SCM	DSA321SCM	DSA535SC	DSB211SCM	DSB221SCM	DSB321SCM	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		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 ±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					—						
Control Sensitivity												
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]

DSA211SCM/DSB211SCM/DSB211SCB

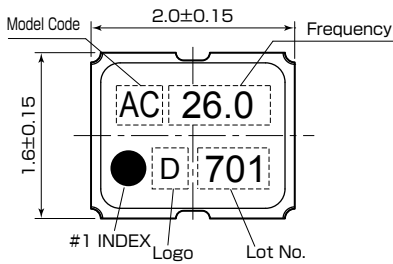
Model Code

AC : VC-TCXO (DSA211SCM)

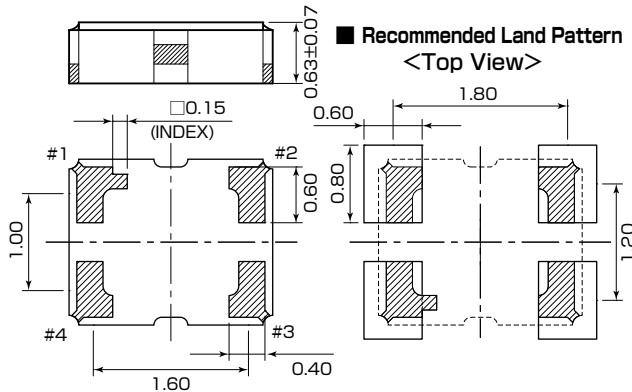
BC : TCXO (DSB211SCM)

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>



DSA221SCM/DSB221SCM/DSB221SCB

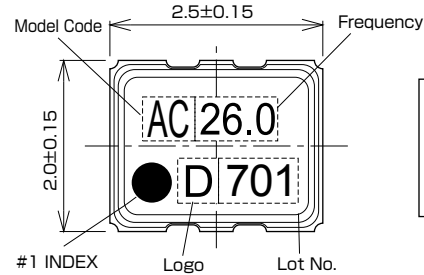
Model Code

AC : VC-TCXO (DSA221SCM)

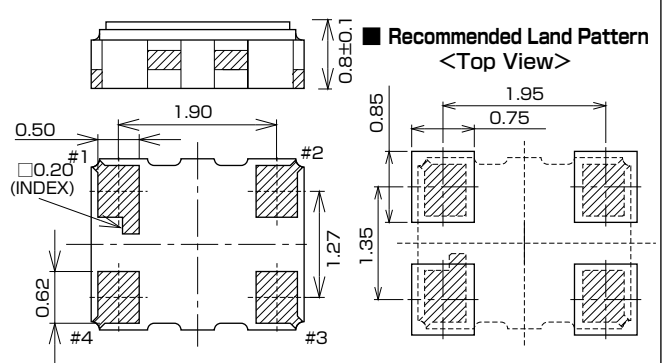
BC : TCXO (DSB221SCM)

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>



DSA321SCM/DSB321SCM/DSB321SCB

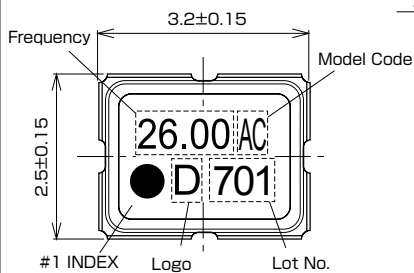
Model Code

AC : VC-TCXO (DSA321SCM)

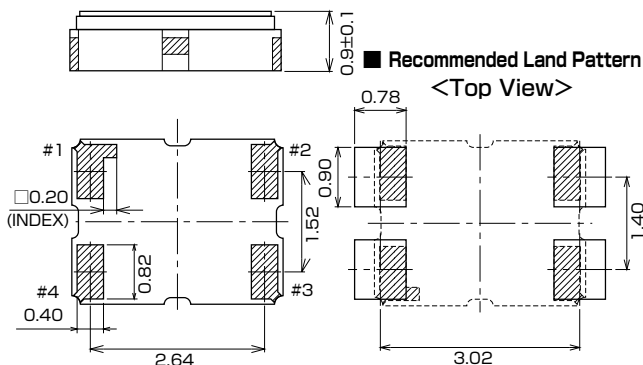
BC : TCXO (DSB321SCM)

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>



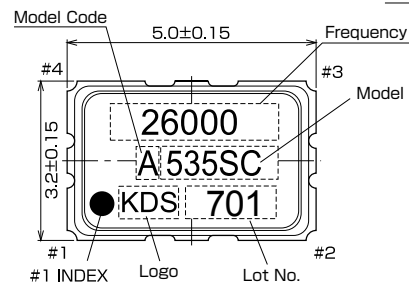
DSA535SC/DSB535SC

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>

