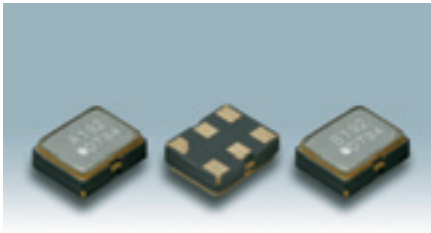


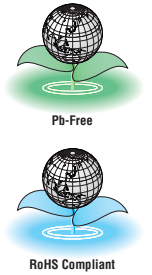
SMD VC-TCXO/TCXO

DSA221SA/ DSB221SA for Mobile communications



Features

- 2520 size, 0.8 mm high ultra miniature SMD VC-TCXO/TCXO (0.0045cc, 0.02g)
- Low voltage. Supply voltage up to +2.3V~+5.5V.
- 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, PCN, PCS, PHS)

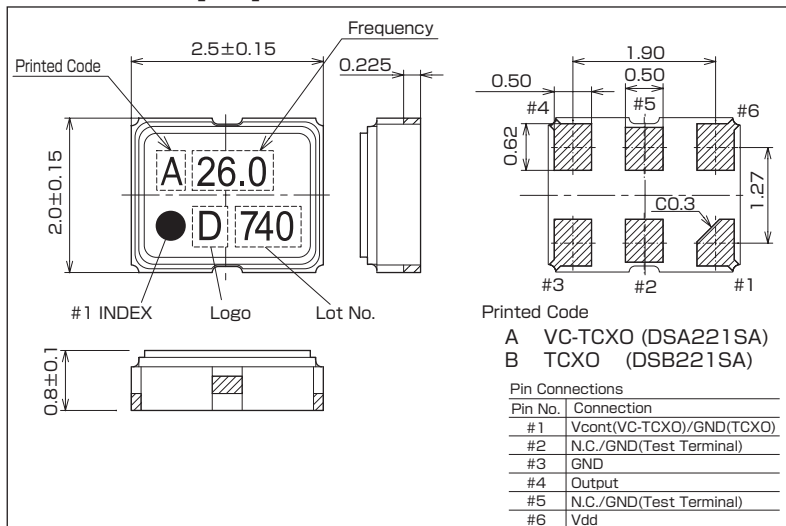
Actual size

Standard Specification

Item	Type	DSA221SA (VC-TCXO)	DSB221SA (TCXO)
Output Frequency Range		9.6 MHz to 40 MHz	
Standard Frequency		13/ 19.2/ 26/ 38.4MHz	
Supply Voltage		+2.6V/ +2.8V/ +3.0V/ +3.3V	
Current Consumption		+1.3 mA max. (9.6≤f≤26MHz) / +1.5 mA max. (f>26MHz)	
Output Level		0.8 Vp-p min. (Clipped Sinewave / DC-coupled)	
Harmonics		-8dBc max.	
Output Load		10 kΩ//10 pF	
Frequency Stability		±1.5×10 ⁻⁶ max.(After 2 reflows)	
Tolerance vs. Temperature		±2.0×10 ⁻⁶ max./ -30 to +85deg.C @CDMA ±2.5×10 ⁻⁶ max./ -30 to +85deg.C @GSM	
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	
Start up Time		2.0 msec. max.	
Frequency Control			
Control Sensitivity		±7.8×10 ⁻⁶ to ±12×10 ⁻⁶ / Vcont=+1.4V±1V @CDMA ±9.0×10 ⁻⁶ to ±15×10 ⁻⁶ / Vcont=+1.5V±1V @GSM	-
Response Slope		Positive	-
Phase Noise		[f≤15MHz] -115 dBc/Hz (Offset 100Hz) -135 dBc/Hz (Offset 1kHz) -145 dBc/Hz (Offset 10kHz) -145 dBc/Hz (Offset 100kHz)	[15MHz<f≤26MHz] -110 dBc/Hz (Offset 100Hz) -130 dBc/Hz (Offset 1kHz) -140 dBc/Hz (Offset 10kHz) -145 dBc/Hz (Offset 100kHz) [f>26MHz] -105 dBc/Hz (Offset 100Hz) -125 dBc/Hz (Offset 1kHz) -135 dBc/Hz (Offset 10kHz) -145 dBc/Hz (Offset 100kHz)
Packing Unit		2000pcs./reel (φ 180)	

Consult our sales representative for other specifications.

Dimensions[mm]



Recommended Land Pattern [mm]

