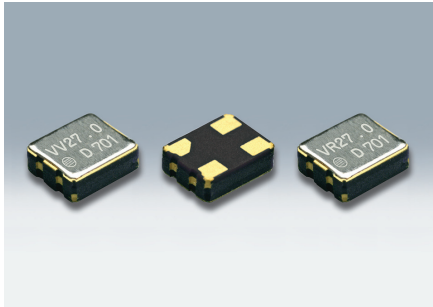


SMD Voltage Controlled Crystal Oscillators

DSV221SV/DSV221SR



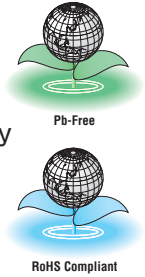
Actual size

■ Features

- 2520 size, 0.815mm height. Miniature SMD-VCXO
- The product is an analog VCXO which ensures good variable frequency and a linear changing frequency
- Low current consumption

■ Applications

- DVD, Digital TV, STB



■ Standard Specification

| Item | Type | Legend | DSV221SV | DSV221SR |
|---|------|--------|--|--|
| Output Frequency Range | | fo | 6.75 to 90MHz | |
| Supply Voltage | | Vcc | +2.8V±0.28V | +3.3V±0.33V |
| Frequency Control Voltage | | Vcont | +1.4V±1.4V | +1.65V±1.65V |
| Storage Temperature Range | | T_stg | -40 to +85°C | |
| Operating Temperature Range | | T_use | -10 to 70°C / -30 to +85°C | |
| Frequency Tolerance (Includes frequency tolerance at room temperature.) | | f_tol | ±40×10 ⁻⁶ max. | |
| Frequency Adjustment Range | | f_cont | ±125×10 ⁻⁶ min. [Positive Slope] | ±100×10 ⁻⁶ min. [Positive Slope] |
| Current Consumption | | Icc | 3mA max.(6.75MHz≤fo≤40MHz) 5.5mA max.(40MHz<fo≤65MHz) 9.5mA max.(65MHz<fo≤90MHz) [No Load] | 2mA max.(7.5MHz≤fo≤40MHz) 3mA max.(40MHz<fo≤60MHz) [No Load] |
| Load Condition | | L_cmos | 15pF | |
| Symmetry | | SYM | 45 to 55% [50% Vcc Level] | |
| 0 Level Output Voltage | | VoL | Vcc×0.1 max. | |
| 1 Level Output Voltage | | VoH | Vcc×0.9 min. | |
| Rise and Fall Time | | tr, tf | 10ns max.(6.75MHz≤fo≤40MHz) 6ns max.(40MHz<fo≤65MHz) 4ns max.(65MHz<fo≤90MHz) [10 to 90% Vcc] | 10ns max.(6.75MHz≤fo≤40MHz) 6ns max.(40MHz<fo≤65MHz) [10 to 90% Vcc] |
| Period Jitter (1) | | tRMS | 2.4ps typ. (σ) | |
| | | tp-p | 22ps typ. (Peak to peak) | |
| Total Jitter (1) | | tTL | 33ps typ. [tDJ + n×tRJ n=14.1 (BER=1×10 ⁻¹³)(2)] | |
| Phase Jitter | | tpj | 1ps max. (10MHz≤fo<40MHz,fo offset: 12kHz to 5MHz, fo≥40MHz,fo offset: 12kHz to 20MHz) | |
| Packing Unit | | - | 2000pcs./reel(φ180) | |

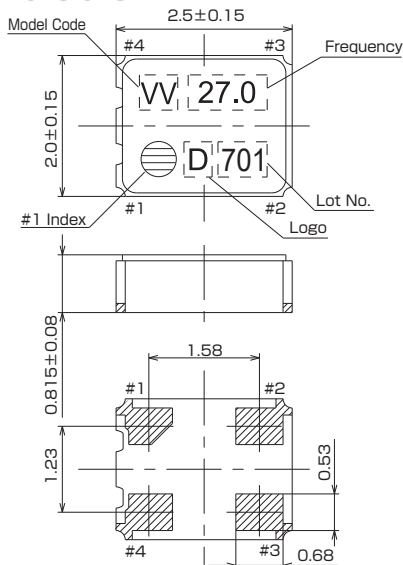
(1) Measured WAVECREST DTS-2075

(2) tDJ: Deterministic jitter tRJ: Random jitter

Consult our sales representative for other specifications.

[mm]

■ Dimensions



■ Recommended Land Pattern

<Top View>

