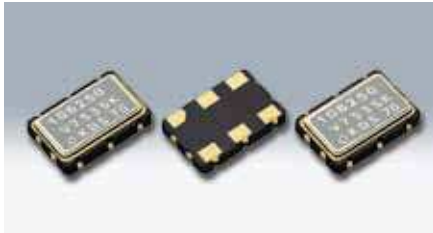


SMD Voltage Controlled Crystal Oscillators

DSV753S SERIES



Actual size

■ Features

- 7.3x4.9x1.5mm size miniature SMD-VCXO(0.06cc)
- Available with four types of output function:CMOS,LV-PECL,LVDS and HCSL
- Differential output (LV-PECL,LVDS,HCSL)
- Low jitter
- 3-state function

■ Applications

- Optical transmission device,radio transmitter-receiver equipment,digital image devices and HDTV related equipment.



■ Standard Specification

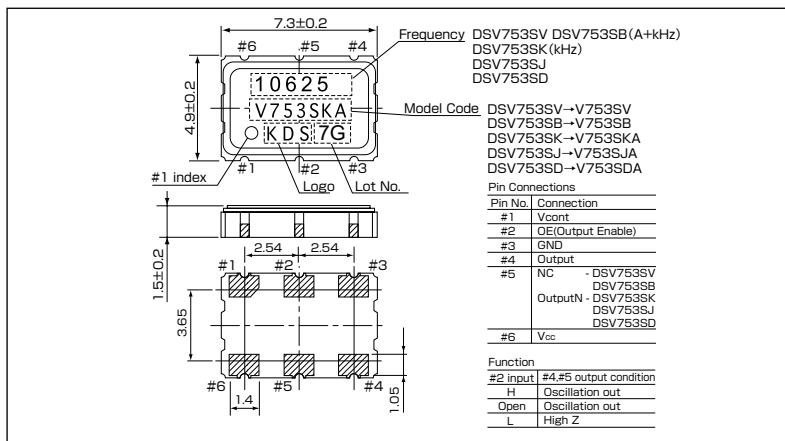
Item	Type	Legend	DSV753SV	DSV753SB	DSV753SK	DSV753SJ	DSV753SD
Output Specification		—	CMOS		LV-PECL	LVDS	HCSL
Output Frequency Range	fo		2~170MHz	4~50MHz	40~170MHz	80~170MHz	80~170MHz
Supply Voltage	V _{cc}		+3.3V±0.33V	+5.0V±0.5V	+3.3V±0.165V		
Frequency Control Voltage	V _{cont}		+1.65V±1.35V	+2.5V±2.0V	+1.65V±1.65V		
Storage Temperature Range	T _{stg}		-40°C~85°C				
Operating Temperature Range	T _{use}		-10°C~70°C / -40°C~85°C				
Frequency Tolerance	f _{tol}		±50 X 10 ⁻⁶ max.				
Frequency Adjustment Range	f _{cont}		±100 X 10 ⁻⁶ min. [Positive Slope]				
Current Consumption	I _{cc}		12mA max.(2≤fo≤90MHz) 25mA max.(80≤fo≤170MHz) [No Load]	15mA max. [No Load]	50mA max.	30mA max.	40mA max.
Stand-by Current (#1 pin "L" Level)	I _{std}		5mA max.(2≤fo≤90MHz) 30μA max.(80≤fo≤170MHz)	8mA max.	30μA max.		
Output Load	Load		15pF max.		50Ω to V _{cc} -2V	100Ω(Output-OutputN)	50Ω
Symmetry	SYM		40%~60%[50% V _{cc} Level]		40%~60%[at outputs cross point]		
0 Level Output Voltage	V _{OL}		V _{cc} ×0.1 max.		V _{cc} -1.81V~V _{cc} -1.62V	—	-150mV~150mV
1 Level Output Voltage	V _{OH}		V _{cc} ×0.9 min.		V _{cc} -1.025V~V _{cc} -0.88V	—	600mV~850mV
Rise and Fall Time	tr, tf		10ns max.(2≤fo≤40MHz) 6ns max.(40<fo≤54MHz) 4ns max.(54<fo≤90MHz) 2ns max.(80≤fo≤170MHz) [10~90% V _{cc} Level]	10ns max. [10~90% V _{cc} Level]	0.5ns max. [20~80% Output,OutputN]		0.5ns max. [0.175~0.525V Level]
Differential Output Voltage	V _{OD1} , V _{OD2}		—	—	—	0.247V~0.454V	—
Change to VOD	ΔV _{OD}		—	—	—	50mV [ΔV _{OD} = V _{OD1} -V _{OD2}]	—
Offset Voltage	V _{OS}		—	—	—	1.125V~1.375V	—
Offset to VOS	ΔV _{OS}		—	—	—	50mV	—
Crossing Point Voltage	V _{CR}		—	—	—	—	250mV~550mV
OE Pin 0 Level Input Voltage	V _{IL}		V _{cc} ×0.3 max.				
OE Pin 1 Level Input Voltage	V _{IH}		V _{cc} ×0.7 min.				
Output Disable Time	t _{PLZ}		150ns max.(2≤fo≤90MHz) 200ns max.(80≤fo≤170MHz)	150ns max.	200ns max.		
Output Enable Time	t _{PZL}		150ns max.(2≤fo≤90MHz) 2ms max.(80≤fo≤170MHz)	150ns max.	2ms max.		
Period Jitter (1)	t _{RMS}		2.4ps typ. (σ)				
	tp-p		22ps typ. (Peak to peak)				
Total Jitter (1)	t _{TL}		33ps typ. [t _{DJ} + n*t _{RJ} n=14.1 (BER=1*10 ⁻¹²)(2)]				
Phase Jitter	tpj		1ps max. (fo<40MHz,fo offset: 12kHz~5MHz,40MHz≤fo,fo offset: 12kHz~20MHz)				
Packing Unit			1000pcs/reel(254φ)				

(1) Measured WAVECREST DTS-2075

(2)t_{DJ}:Deterministic Jitter t_{RJ}:Random Jitter

Consult our sales representative for other specifications.

■ Dimensions[mm]



■ Recommended Land Pattern [mm]

