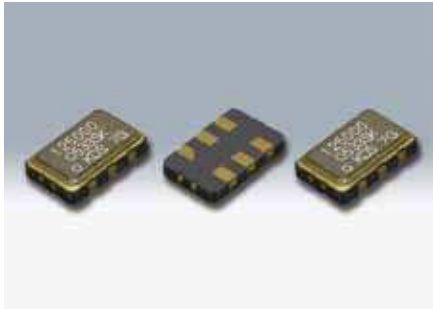


SMD Crystal Oscillators

DSO533S SERIES



Actual size

■ Features

- Package size: 5.0×3.2×1.1mm
- 2.5V/3.3V operating voltage, High speed type(13.5 to 212.5MHz)
- 3-state function
- LV-PECL output(DSO533SK)
- LVDS output(DSO533SJ)

■ Applications

- Sever, SONET, SDH, PC



■ Standard Specification

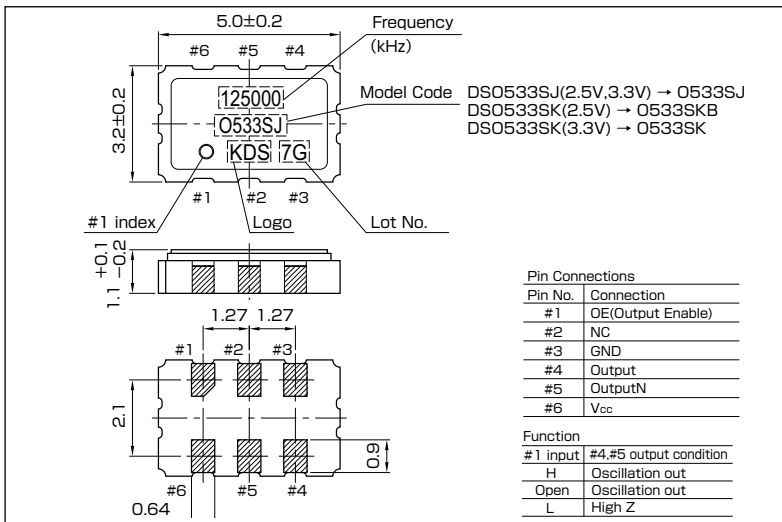
Item	Type	Legend	DSO533SK	DSO533SJ
Output Specification	-	-	LV-PECL	LVDS
Output Frequency Range	-	-	13.5~212.5MHz	
Supply Voltage	V _{CC}	-	+2.5±0.125V/+3.3±0.165V	
Frequency Tolerance(Includes frequency tolerance at room temperature.)	f _{tol}	-	±50×10 ⁻⁶ max., ±100×10 ⁻⁶ max.	
Storage Temperature Range	T _{stg}	-	-40~+85°C	
Operating Temperature Range	T _{use}	-	-10~+70°C, -40~+85°C	
Current Consumption	I _{CC}	-	45mA max. (fo≤170MHz), 50mA max. (170<fo≤212.5MHz)	20mA max.
Stand-by Current (#1 pin "L"level)	I _{std}	-	10μA max.	
Load Resistance	Load-R	-	50Ω to V _{CC} -2V	100Ω (Output-OutputN)
Symmetry	SYM	-	45~55% [at outputs cross point]	
0 Level Output Voltage	V _{OL}	-	V _{CC} -1.81~V _{CC} -1.62V	-
1 Level Output Voltage	V _{OH}	-	V _{CC} -1.025~V _{CC} -0.88V	-
Rise and Fall Time	tr, tf	-	0.5ns max. [20~80% Output, OutputN]	0.4ns max. [20~80% Output-OutputN]
Differential Output Voltage	V _{OD1} , V _{OD2}	-	-	0.247~0.454V
Change to V _{OD}	ΔV _{OD}	-	-	50mV [ΔV _{OD} = V _{OD1} -V _{OD2}]
Offset Voltage	V _{OS}	-	-	1.125~1.375V
Offset to V _{OS}	ΔV _{OS}	-	-	50mV
OE Pin 0 Level input Voltage	V _{IL}	-	V _{CC} ×0.3max.	
OE Pin 1 Level input Voltage	V _{IH}	-	V _{CC} ×0.7min.	
Output Disable Time	t _{PLZ}	-	200ns	
Output Enable Time	t _{PZL}	-	2ms	
Period Jitter(1)	t _{RMS}	-	5ps typ. (13.5≤fo<27MHz) / 2.5ps typ. (27≤fo<212.5MHz) (σ)	
	t _{p-p}	-	33ps typ. (13.5≤fo<27MHz) / 22ps typ. (27≤fo<212.5MHz) (Peak to peak)	
Total Jitter (1)	t _{TJ}	-	50ps typ. (13.5≤fo<27MHz) / 35ps typ. (27≤fo<212.5MHz) [t _{DJ} + n*t _{RJ} n=14.1(BER=1*10 ⁻¹²) (2)]	
Phase Jitter	t _{pj}	-	1.5ps max. (13.5≤fo<27MHz) / 1ps max. (27≤fo<212.5MHz) [13.5≤fo<40MHz,fo offset: 12kHz~5MHz fo≥40MHz,fo offset: 12kHz~20MHz]	
Packing Unit	-	-	1000pcs./reel (φ 180)	

(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]

