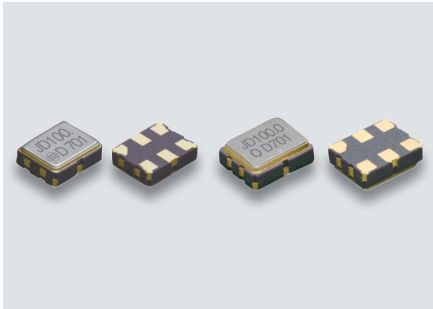


SMD Differential Output Crystal Oscillators - Low Voltage

DSO223SJ/DSO323SJ/DSO223SD/DSO323SD



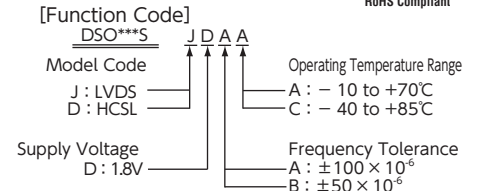
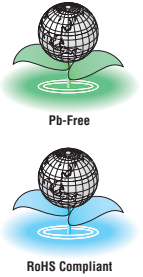
Actual size DSO223S SERIES ■ DSO323S SERIES ■

Features

- 1.8V operating voltage, High speed type
- 3-state function
- LVDS output (DSO223/323SJ)
- HCSL output (DSO223/323SD)
- AEC-Q200 Compliant (Option: Equivalent to AEC-Q100)

Applications

- Server, Optical transmission device, Communication base station and Automotive multimedia device



When requesting the product, please select the model and function code of your request.

Standard Specification

Item	Type	Legend	DSO223SJ DSO323SJ	DSO223SD DSO323SD
Output Specification	—		LVDS	HCSL
Output Frequency Range	f ₀		27 to 100MHz	
Supply Voltage	V _{CC}		+1.8V±0.09V	
Frequency Tolerance (Includes frequency tolerance at room temperature)	f _{tol}		±50×10 ⁻⁶ max., ±100×10 ⁻⁶ max.	
Storage Temperature Range	T _{stg}		-40 to +85°C	
Operating Temperature Range	T _{use}		-10 to +70°C, -40 to +85°C	
Current Consumption	I _{CC}		12mA max.	25mA max.
Stand-by Current (#1 pin "L" Level)	I _{std}		10μA max.	
Load Condition	Load-R		100Ω (Output-OutputN)	50Ω
Symmetry	SYM		45 to 55% [at outputs cross point]	
0 Level Output Voltage	V _{OL}		—	-0.15 to 0.15V
1 Level Output Voltage	V _{OH}		—	0.55 to 1.0V
Rise and Fall Time	t _r , t _f		0.5ns max. [20 to 80% Output-OutputN]	0.6ns max. [20 to 80% V _{opp}]
Differential Output Voltage	V _{OD1} , V _{OD2}		0.247 to 0.454V	—
Change to V _{OD}	ΔV _{OD}		50mV [ΔV _{OD} = V _{OD1} - V _{OD2}]	—
Offset Voltage	V _{OS}		1.125 to 1.375V	—
Offset to V _{OS}	ΔV _{OS}		50mV	—
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}		200ns	
Output Enable Time	t _{PZL}		2ms	
Period Jitter (1)	t _{RMS}		2.5ps typ. (σ)	
	t _{p-p}		22ps typ. (Peak to peak)	
Total Jitter (1)	t _{TL}		35ps typ. [t _{DJ} + n×t _{RJ} n=14.1 (BER=1×10 ⁻¹²) (2)]	
Phase Jitter	t _{pj}		1ps max.	
Packing Unit (3)	—		2000pcs./reel (φ180)	

- (1) Measured WAVECREST DTS-2075
 (2) t_{DJ}: Deterministic jitter t_{RJ}: Random jitter
 (3) Moisture prevention packing is unnecessary.
 Moisture Sensitivity Level: Level 1 (IPC/JEDEC J-STD-033)

Consult our sales representative for other specifications.

DSO223S SERIES

DSO323S SERIES

