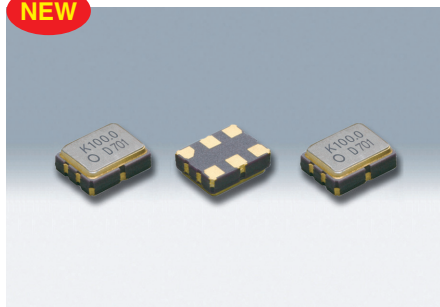


SMD Differential Output Crystal Oscillators - Low Voltage (For Automotive)

DSO323SJ/DSO323SD

NEW



Actual size

Features

- 1.8V operating voltage, High speed type
- 3-state function
- LVDS output (DSO323SJ)
- HCSL output (DSO323SD)
- AEC-Q200 Compliant (Option: Equivalent to AEC-Q100)

Applications

- Multimedia devices such as car navigation systems and car audio



[Function Code]

DSO323S

Model Code

J : LVDS

D : HCSL

Supply Voltage

D : 1.8V

J D A A

Operating Temperature Range

C : - 40 to +85°C

E : - 40 to +105°C

Frequency Tolerance

A : $\pm 100 \times 10^{-6}$

B : $\pm 50 \times 10^{-6}$

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

Standard Specification

Item	Type	Legend	DSO323SJ	DSO323SD
Output Specification	-	-	LVDS	HCSL
Output Frequency Range	fo	-	100 to 167MHz	
Supply Voltage	Vcc	-	+1.8V±0.09V	
Frequency Tolerance (Includes frequency tolerance at room temperature.)	f_tol	-	$\pm 50 \times 10^{-6}$ max., $\pm 80 \times 10^{-6}$ max. / $\pm 100 \times 10^{-6}$ max.	
Storage Temperature Range	T_stg	-	-40 to +105°C	
Operating Temperature Range	T_use	-	-40 to +85°C, -40 to +105°C	
Current Consumption	Icc	-	25mA max.	50mA max.
Stand-by Current (#1 pin "L" Level)	I_std	-	30µA max.	
Load Resistance	Load-R	-	100Ω (Output-OutputN)	50Ω
Symmetry	SYM	-	45 to 55% [at outputs cross point]	
0 Level Output Voltage	VO_L	-	-	-0.15 to 0.15V
1 Level Output Voltage	VO_H	-	-	0.55 to 1.0V
Rise and Fall Time	tr, tf	-	0.4ns max. [20 to 80% Output-OutputN]	0.5ns max. [-0.15 to 0.15V/Output-OutputN]
Differential Output Voltage	VOD1, VOD2	-	0.247 to 0.454V	-
Change to VOD	ΔVOD	-	50mV [ΔVOD = VOD1 - VOD2]	-
Offset Voltage	VOs	-	1.125 to 1.375V	-
Offset to VOs	ΔVOs	-	50mV	-
OE Pin 0 Level input Voltage	VI_L	-	Vcc×0.3 max.	
OE Pin 1 Level input Voltage	VI_H	-	Vcc×0.7 min.	
Output Disable Time	tPLZ	-	200ns	
Output Enable Time	tPZL	-	2ms	
Period Jitter (1)	tRMS	-	2.5ps typ. (σ)	
	tp-p	-	22ps typ. (Peak to peak)	
Total Jitter (1)	tTL	-	35ps typ. [tDJ + n×tRJ n=14.1 (BER=1×10 ⁻¹³) (2)]	
Phase Jitter	tpj	-	0.15ps max.	
Reliability	-	-	AEC-Q100/AEC-Q200	
Packing Unit (3)	-	-	2000pcs./reel (φ180)	

- (1) Measured WAVECREST DTS-2075
- (2) tDJ:Deterministic jitter tRJ: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.

DSO323S SERIES

[mm]

Dimensions

Model Code
DSO323S-JJ
DSO323S-D

Pin Connections

Pin No.	Connection
#1	OE(Output Enable)
#2	NC
#3	GND
#4	Output
#5	OutputN
#6	Vcc

Function

#1 Input	#4,#5 Output condition
H	Oscillation out
Open	Oscillation out
L	High Z

Recommended Land Pattern

<Top View>