

Product Overview

NL3S2223: High-Speed USB 2.0 DPDT Switch

For complete documentation, see the data sheet.

The NL3S2223 is a DPDT switch optimized for high-speed USB 2.0 applications within portable systems. It features ultra-low on capacitance, $C_{ON} = 7.5 \text{ pF}$ (typ), and a bandwidth above 950MHz. It is optimized for applications that use a single USB interface connector to route multiple signal types. The C_{ON} and R_{ON} of both channels are suitably low to allow the NL3S2223 to pass any speed USB data or audio signals going to a moderately resistive terminal such as an external headset.

Features

- Optimized Flow-Through Pinout
- R_{ON} : 5.0Ω Typ @ $V_{CC} = 4.2 \text{ V}$
- C_{ON} : 5.5 pF Typ @ $V_{CC} = 3.3 \text{ V}$
- V_{CC} Range: 1.65 V to 4.5 V
- Typical Bandwidth: 950 MHz
- OVT on Common Signal Pins D+/D- up to 5.25 V
- $1.4 \text{ mm} \times 1.8 \text{ mm} \times 0.50 \text{ mm}$ UQFN10
- 8 kV HBM ESD Protection on All Pins
- These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant

Benefits

- Easier for Board Layout and Noise Reduction
- Reduces Signal Distortion
- Improved Device Bandwidth
- Wide Operation Range
- Plenty of Overhead for USB 2.0 Eye
- Protects Device Against Long-Term Failure
- Minimized Board Space Requirement
- Protection Against ESD Event
- Environmentally Conscience

Applications

- High Speed USB 2.0 Data
- Mobile Phones
- Portable Devices
- Digital Cameras

End Products

- Smartphones
- Digital Cameras
- Tablets
- Power Bank
- Drones

Part Electrical Specifications

Product	Compliance	Status	Channels	Number of Switches	Configuration	I_{CC} Max (μA)	r_{on} Max (Ω)	V_{CC} Min (V)	V_{CC} Max (V)	Package Type
NL3S2223MUTBG	Pb-free Halide free	Active	2	1	DPDT	0.1	7.6	1.65	4.5	UQFN-10

For more information please contact your local sales support at www.onsemi.com.

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