

# ADG738BRUZ

Data Sheet

Analogue Switch, 1 Channels, SPST, 4.5 ohm, 2.7V to 5.5V, TSSOP, 16 Pins

Manufacturers Analog Devices, Inc

Package/Case TSSOP-16

Product Type Analog Switches Multiplexers; Single Supply 2V to 16V

RoHS Pb-free Halide free

Lifecycle



Images are for reference only

Please submit RFQ for ADG738BRUZ or <a href="mailto:remailto:remailto:remailto:bus:sales@ovaga.com">remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:remailto:re

**RFO** 

### **General Description**

The ADG738 is a CMOS analog matrix switch with a serially-controlled 3-wire interface. The ADG738 is an 8-channel matrix switch. On resistance is closely matched between switches and very flat over the full signal range.

The ADG738 utilize a 3-wire serial interface that is compatible with SPI<sup>TM</sup>, QSPI<sup>TM</sup>, MICROWIRE®, and some DSP interface standards. The output of the input shift register, DOUT, enables a number of these parts to be daisy-chained. On power-up, the internal input shift register contains all zeros and all switches are in the off state.

Each switch conducts equally well in both directions when on, making these parts suitable for both multiplexing and demulti-plexing applications. As each switch is turned on or off by a separate bit, these parts can also be configured as a type of switch array, where any, all, or none of the eight switches may be closed at any time. The input signal range extends to the supply rails.

All channels exhibit break-before-make switching action, preventing momentary shorting when switching channels.

The ADG738 is available in 16-lead TSSOP packages.

**Product Highlights** 

3-Wire Serial Interface.

Single Supply Operation. The ADG738 is fully specified and guaranteed with 3 V and 5 V supply rails.

Low On Resistance, 2.5  $\Omega$  typical.

Any configuration of switches may be on or off at any one time.

Guaranteed Break-Before-Make Switching Action.

Small 16-lead TSSOP Package.

## **Features**

3-wire serial interface

2.7 V to 5.5 V single supply

 $2.5 \Omega$  on resistance

 $0.75~\Omega$  on-resistance flatness

100 pA leakage currents

Single 8-to-1 multiplexer ADG738

Power-on reset

TTL/CMOS-compatible

Qualified for automotive applications

# **Application**

Data Acquisition Systems

Communication Systems

Relay Replacement

Audio and Video Switching





#### **Related Products**



ADV7181CBSTZ

Analog Devices, Inc LQFP-64



**AD724JR** 

Analog Devices, Inc SOIC-16



## ADV7391WBCPZ

Analog Devices, Inc LFSCP-3



ADV7341BSTZ

Analog Devices, Inc LQFP-64



**AD8170AR** 

Analog Devices, Inc SOP8



#### ADV7393BCPZ

Analog Devices, Inc LFCSP-VQ-40



#### ADV7390BCPZ

Analog Devices, Inc QFN32



#### ADUM4160BRIZ

Analog Devices, Inc SOIC-16