

Low Voltage SPDT Analog Switch 2:1 Mux/Demux Bus Switch

Features

- CMOS Technology for Bus and Analog Applications
- Low On-Resistance: 8Ω at 3.0V
- Wide V_{CC} Range: 1.65V to 5.5V
- Rail-to-Rail Signal Range
- Control Input Overvoltage Tolerance: 5.5V(Min)
- Fast Transition Speed: 2ns at 5.0V
- High Off Isolation: -63dB @ 10MHz
- Break-Before-Make Switching
- High Bandwidth: 350MHz
- Extended Industrial Temperature Range: -40°C to 85°C
- PI5A3157B Is Improved Direct Replacement for NC7SB3157
- Packaging (Pb-free & Green): 6-pin UDFN 1×1 and 6-pin SC70

Description

The PI5A3157B is a high-bandwidth, fast single-pole double-throw (SPDT) CMOS switch. It can be used as an analog switch or as a low-delay bus switch. Specified over a wide operating power supply voltage range, 1.65V to 5.5V, the PI5A3157B has a maximum ON resistance of 12-ohms at 1.65V, 9-ohms at 2.3V & 6-ohms at 4.5V.

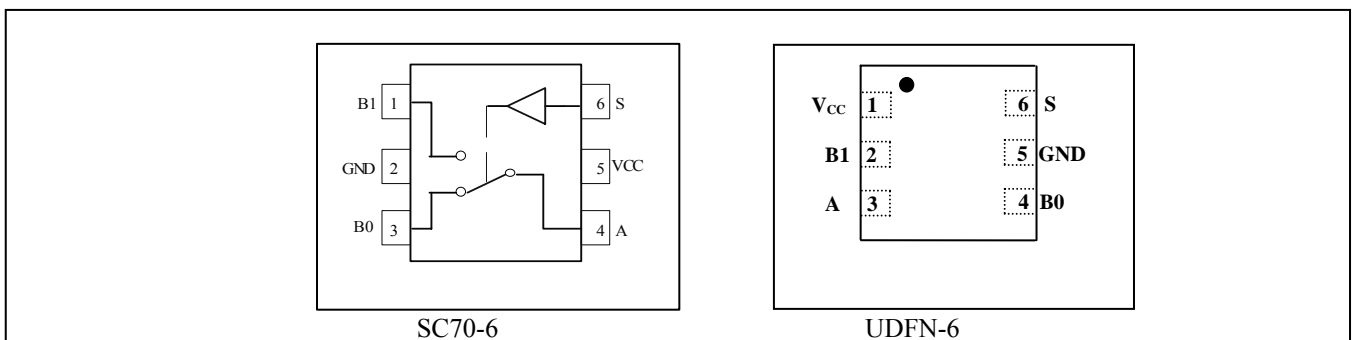
Break-before-make switching prevents both switches being enabled simultaneously. This eliminates signal disruption during switching.

The control input, S, is independent of supply voltage. PI5A3157B is an improved direct replacement for the NC7SB3157.

Application

- Cell Phones
- PDAs
- MP3 Players
- Portable Instrumentation
- Battery powered Communications
- Computer Peripherals

Pin Assignment



Pin Description

| Pin No | | Pin Name | Description |
|--------|--------|-----------------|--------------------------------|
| SC70-6 | UDFN-6 | | |
| 1 | 2 | B1 | Data Port |
| 2 | 5 | GND | Ground |
| 3 | 4 | B0 | Data Port (Normally connected) |
| 4 | 3 | A | Common Output/Data Port |
| 5 | 1 | V _{CC} | Positive Power Supply |
| 6 | 6 | S | Logic control |

Logic Function Table

| Logic Inputs(S) | Function |
|-----------------|-----------------------------|
| 0 | B ₀ connect to A |
| 1 | B ₁ connect to A |