

Complete Data Sheet available via web, Harris' home page: <http://www.semi.harris.com> or via Harris AnswerFAX, see Section 17

August 1997

Quad CMOS Analog Switches

Features

- Switches Greater Than 20V_{p-p} Signals with ±15V Supplies
- Quiescent Current <10μA
- Break-Before-Make Switching
 - t_{OFF} (Typ) 500ns
 - t_{ON} (Typ) 1000ns
- TTL, CMOS Compatible
- IH5052 4 Normally Closed Switches
- IH5053 4 Normally Open Switches
- Low I_{DS(ON)} (Typ) 80Ω

Ordering Information

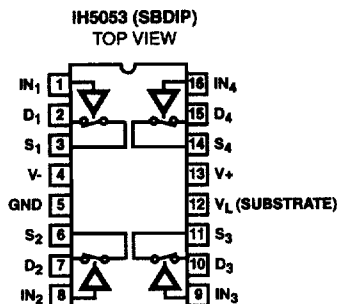
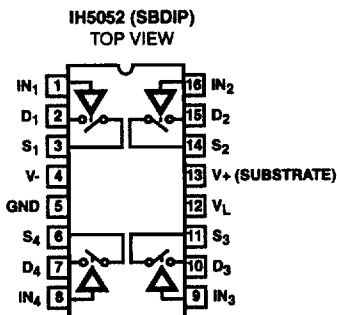
PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
IH5052CDE	-0 to 70	16 Ld SBDIP	D16.3
IH5052MDE	-55 to 125	16 Ld SBDIP	D16.3
IH5053CDE	-0 to 70	16 Ld SBDIP	D16.3
IH5053MDE	-55 to 125	16 Ld SBDIP	D16.3

Description

The IH5052, IH5053 analog switches use an improved, high voltage CMOS technology, which provides performance advantages not previously available from solid state switches. Key performance advantages are TTL compatibility and ultra low-power operation. The quiescent current requirement is less than 10μA.

The IH5052, IH5053 also guarantees Break-Before-Make switching. This is accomplished by extending the t_{ON} time (1000ns) such that it exceeds t_{OFF} time (500ns). This insures that an ON channel will be turned OFF before an OFF channel can turn ON, and eliminates the need for external logic required to avoid channel to channel shorting during switching. With a logic "0" (0.8V or less) at its control inputs, the IH5052 switches are closed, while the IH5053 switches are closed with a logic "1" (2.4V or more) at its control inputs.

Pinouts



Switch states shown for logic "1" input

Functional Diagram

