Analog Switches

General Purpose Analog Switches

Harris offers two general-purpose switch lines, each with various switch configurations. The first consists of bipolar drivers controlling an associated set of field-effect switching transistors in a multi-chip structure that provides a wide choice of parameters at low cost. The second is a monolithic CMOS structure capable of improved performance and greater reliability. All have break-before-make switch action. All switches are available in commercial and military temperature ranges. Package options include Plastic S.O.I.O. (not all options are available for all devices types).

General Purpose Analog Switches

Switch Family†	Special Features	Switch Type	$R_{DS(ON)}$ Ω Max	Switches Parameters			
				$I_{D(OFF)}$ nA Max	t_{ON} ns Max	t_{OFF} ns Max	Analog Voltage Range (V_{Supply} = ±15V)
Multichip							
DG123-125	Inverting/non-inverting logic Inputs	PMOS	600	4	300	1000	-
DG126-145	Dual Channel/Single Channel	N-JFET	10 15 30 50 80	10 10 1 1 1	1000 1000 600 600 600	2500 2500 1600 1600 1600	- - - - -
DG186-191	Mature, industry-standard switch, JAN38510 Approved	N-JFET	10 30 75	10 1 1	300 150 250	250 130 130	-7.5 to +15 -7.5 to +15 -10 to +15
Monolithic							
DG200/201	Industry-standard low cost	CMOS	70/80	2.0	1000	500	-15 to +15
DG201A DG202	Inverting Non-Inverting	CMOS CMOS	175 175	1.0 1.0	600 600	450 450	-15 to +15 -15 to +15
DG211 DG212	Inverting Non-Inverting	CMOS	175	5.0	1000	500	-15 to +15
DG300A-303A	TTL compatible, low power	CMOS	50	1.0	300	250	-15 to +15
DG308A DG309	Normally-Closed Normally-Open	CMOS CMOS	100 100	1 1	200 200	150 150	-15 to +15 -15 to +15
IH5040-47 IH5052-53	Low quiescent current Low $R_{DS(ON)}$	CMOS	75 75	1.0 1.0	1000 500	500 250	-10 to +10 -11 to +11
IH5140-45	High speed, low power, low leakage	CMOS	50	0.5	175 200	125* 125	-11 to +11
IH5148-51	Low $R_{DS(ON)}$, high speed, low power	CMOS	25	1.0	250 350 500	200 250 250	-14 to +14

*Switching times are for the IH5140 and IH5145 †Switch configurations included in this section.