



ULTRA HIGH SPEED QUAD ANALOG GATE

**CAG-49
CAG-49A
CAG-49B**

- QUAD
- LOW ON RESISTANCE, 35 OHMS TYPICAL
- t_{on} 20 NANO SECONDS MAX.

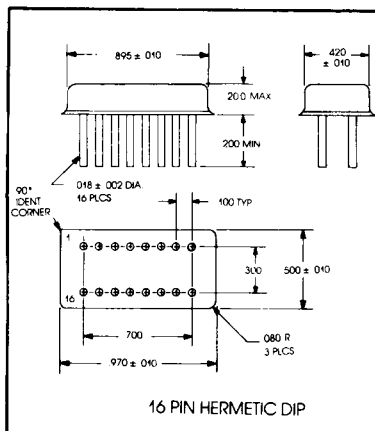
MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNITS
Operating Temperature	T_{op}	-55	-	+125	°C
Storage Temperature	T_{stg}	-55	-	+150	°C
Maximum Switch Current	$I_{D(on)}$	-	-	15	mA
Positive Supply Voltage	V_{cc}	-	+5	5.5	V
Negative Supply Voltage	V_{EE}	-	-15	-18	V

This hybrid circuit is a four-channel analog switch designed for use in high speed store and hold and general purpose analog gate applications.

The CAG49 is available with 10k or 100k Ω feedback R from signal to gate for AC switching:

CAG49A-10K
CAG49B-100K



ELECTRICAL CHARACTERISTICS: (EACH SWITCH) $T_A = 25^\circ\text{C}$, $V_{EE} = -15\text{V}$, $V_{cc} = +5\text{V}$

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Signal Voltage Range	V_{SIG}		-10	-	+5	V
Off Leakage Current	$I_{D(off)}$	$V_{SIG} = -10\text{V}$, $V_{IN} = +3.5\text{V}$	-	-	1.0	nA
Switch On Resistance	R_{on}	$I_{SIG} = 1\text{mA}$, $V_{IN} = +0.5\text{V}$	20	35	50	Ω
**Turn-on Time	t_{on}	See Fig. 2	-	13	20	nS
**Turn-off Time	t_{off}	See Fig. 2	-	20	30	nS
Logic "1" Voltage	$V_{IN(1)}$		3.5	-	6	V
Logic "0" Voltage	$V_{IN(0)}$		0	-	0.5	V
*Logic "1" Current	$I_{IN(1)}$		-	0.8	1.2	mA
*Logic "0" Current	$I_{IN(0)}$		-	0.9	1.2	mA
* V_{EE} Supply Current	I_{EE}		-	1.0	1.5	mA
* V_{cc} Supply Current	I_{cc}		-	0.8	1.2	mA
*Power Consumption	P_T		-	17	30	mW

* Guaranteed Parameters
** Includes Propagation Delay



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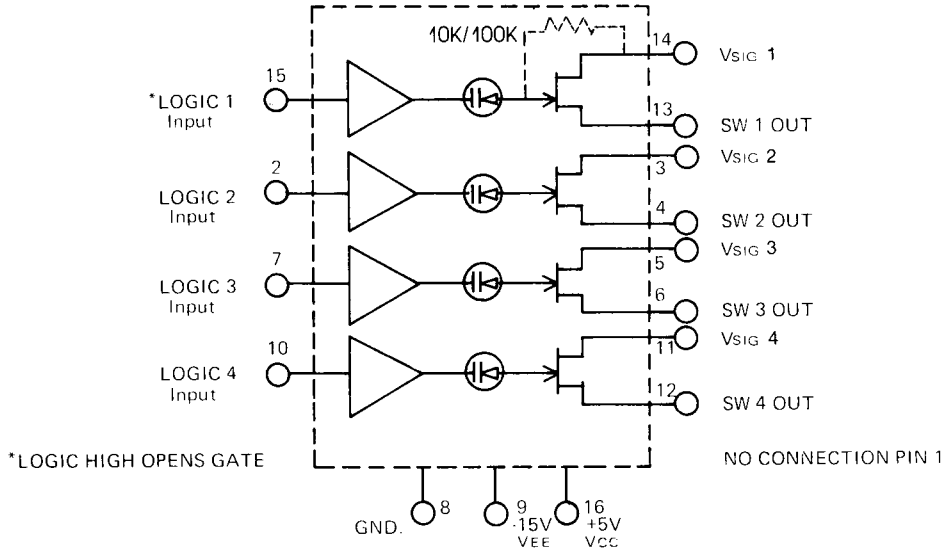


FIGURE 1: PIN CONFIGURATION

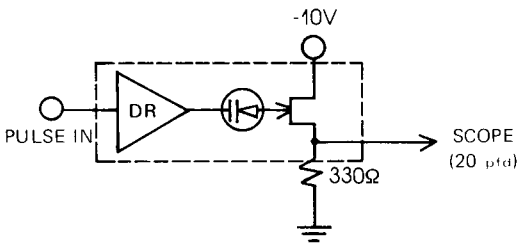


FIGURE 2: SWITCHING TEST

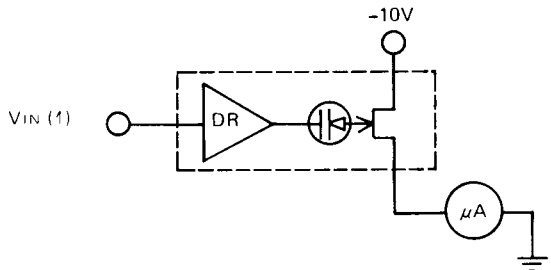


FIGURE 3: I_D (OFF) TEST