

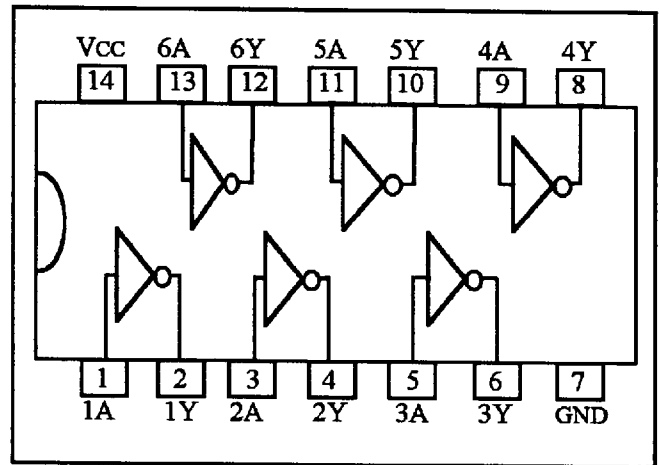
Description

The GD74F04 contains 6 logic inverters which accept standard TTL input signal and standard TTL output level. They have a greater noise margin than conventional inverters.

Function Table (each inverter)

Inputs	Outputs
L	H
H	L

Pin Configuration



Absolute Maximum Ratings

Storage Temperature	-65 °C ~ 150 °C
Ambient Temperature Under Bias.....	-55 °C ~ 125 °C
Junction Temperature Under Bias	-0.5 °C ~ 175 °C
Vcc Voltage	-0.5 V ~ 7.0 V
Input Voltage	-0.5 V ~ 7.0 V
Input Current	-30 mA ~ 5.0 mA
Output Voltage	-0.5 V ~ Vcc

Note: Absolute Maximum ratings are values beyond which the device maybe damaged or have its useful life impaired. Functional operation under these conditions is not implied.

Recommended Operating Conditions

Free Air Ambient Temperature.....	: 0 °C ~ 70 °C
Supply Voltage	: 4.5 V ~ 5.5 V

DC Electrical Characteristics over recommended operating free-air temperature range

SYMBOL	PARAMETER	Min	Typ	Max	UNIT	V _{CC}	CONDITION	TEST CIRCUIT
V _{IH}	Input High Voltage	2.0			V		-----	
V _{IL}	Input Low Voltage			0.8	V		-----	
V _{CD}	Input Clamp Diode Voltage			-1.2	V	Min	I _{IN} = -18mA	See FIG. 18
V _{OH}	Output High Voltage	2.5 2.7			V	4.5 4.75	I _{OH} = -1mA I _{OH} = -1mA	See FIG. 19
V _{OL}	Output Low Voltage			0.5	V	Min	I _{OL} = 20 mA	
I _I	Input High Current Breakdown Test			7.0	μA	Max	V _{IN} = 7.0 V	See FIG. 20
I _{IH}	Input High Current			5.0	μA	Max	V _{IN} = 2.7 V	
I _{IL}	Input Low Current			-0.6	mA	Max	V _{IN} = 0.5 V	
I _{ILK}	Input Leakage Circuit Current			1.9	μA	0.0	V _{IN} = 4.75 V All other pins grounded	See FIG. 21
I _{OLK}	Output Leakage Circuit Current			3.75	μA	0.0	V _{OUT} = 150mV All other pins grounded	See FIG. 22
I _{OS}	Output Short Circuit Current	-60		-150	mA	Max	V _{OUT} = 0 V	See FIG. 24
I _{CCH} I _{CCL}	Supply Current		2.8 10.2	4.2 15.3	mA	Max	V _{IN} = Gnd. V _{IN} = Open	See FIG. 25

* For I_{OS}, Not more than one output should be shorted at a time, and duration should not exceed one second

AC Characteristics

SYMBOL	PARAMETER	TEST CONDITION						UNIT
		T _A = 25 °C			T _A = 0 ~ 70 °C			
		V _{CC} = 5.0 V			V _{CC} = 5 V ± 10 %			
C _L = 50 pF			C _L = 50pF					
		Min	Typ	Max	Min	Typ	Max	
t _{PLH}	Propagation Delay	2.4	3.7	5.0	2.4	--	6.0	ns
t _{PHL}		1.5	3.2	4.3	1.5	--	5.3	ns

