



Description

The GD74F125 contains 4 buffers with 3-State outputs and is provided with an output control input ($\overline{C}$) which is independent for each buffer.

Function Table (each buffer)

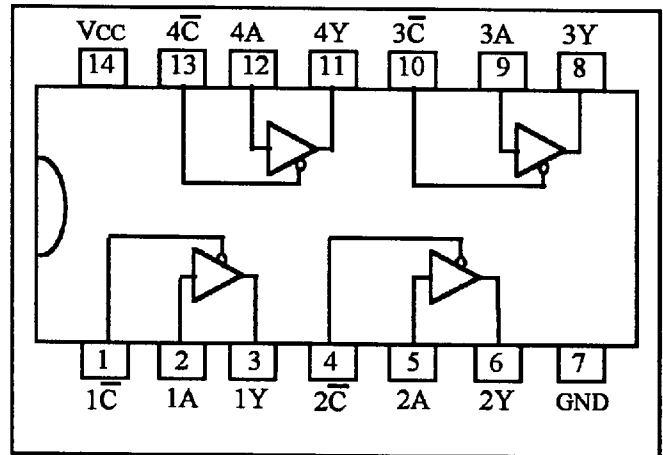
Inputs		Outputs
$\overline{C}$	A	Y
L	L	L
L	H	H
H	X	Z

X : Immaterial

Z : High Impedance

Output is off (disabled) when $\overline{C}$ is high

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 ~ 5.5 V

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	2.4			V	4.5	I _{OH} = -3 mA	See FIG. 19
		2.0				4.5	I _{OH} = -12 mA	
		2.7				4.75	I _{OH} = -3 mA	
		2.0				4.75	I _{OH} = -15 mA	
V _{OL}	Output Low Voltage			0.55	V	Min	I _{OL} = 64 mA	
I _I	Input High Current Breakdown Test			100	μA	0.0	V _{IN} = 7.0 V	See FIG. 20
I _{IH}	Input High Current			20	μA	Max	V _{IN} = 2.7 V	
I _{IL}	Input Low Current			-20	μA	Max	V _{IN} = 0.5 V	
I _{OZH}	Tri-State Output Off Current (High)			50	μA	Max	V _{OUT} = 2.7 V	See FIG. 23
I _{OZL}	Tri-State Output Off Current (Low)			-50	μA	Max	V _{OUT} = 0.5 V	
I _{OS}	Output Short Circuit Current	-100		-225	mA	Max	V _{OUT} = 0 V	See FIG. 24
I _{CCH} I _{CCL} I _{CCZ}	Supply Current		18.5 31.7 27.6	24.0 40.0 35.0	mA	Max	V _{OUT} = High V _{OUT} = Low V _{OUT} = High Z	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	2.0	4.0	6.0	2.0	--	6.5	ns
t _{PHL}		3.0	4.6	7.5	3.0	--	8.0	ns
t _{PZH}	Output Enable Time	3.5	4.7	7.5	3.0	--	8.5	ns
t _{PZL}		3.5	5.3	8.0	3.5	--	9.0	ns
t _{PHZ}	Output Disable Time	1.5	3.9	5.5	1.5	--	6.0	ns
t _{PLZ}		1.5	4.0	6.0	1.5	--	6.5	ns

