

54/74125
54LS/74LS125A
 QUAD BUS BUFFER GATE
 (With 3-State Outputs)

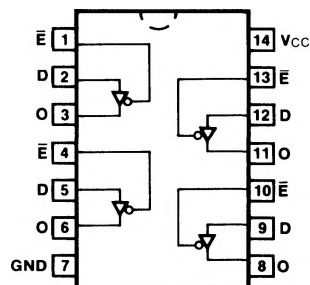
ORDERING CODE: See Section 9

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		$V_{CC} = +5.0\text{ V} \pm 5\%$, $T_A = 0^\circ\text{C to } +70^\circ\text{C}$	$V_{CC} = +5.0\text{ V} \pm 10\%$, $T_A = -55^\circ\text{C to } +125^\circ\text{C}$	
Plastic DIP (P)	A	74125PC, 74LS125APC		9A
Ceramic DIP (D)	A	74125DC, 74LS125ADC	54125DM, 54LS125ADM	6A
Flatpak (F)	A	74125FC, 74LS125AFC	54125FM, 54LS125AFM	3I

INPUT LOADING/FAN-OUT: See Section 3 for U.L. definitions

PINS	54/74 (U.L.) HIGH/LOW	54/74LS (U.L.) HIGH/LOW
Inputs	1.0/1.0	0.5/0.25
Outputs	130/10 (50)	65/15 (25)/(7.5)

CONNECTION DIAGRAM
PINOUT A



TRUTH TABLE

INPUTS		OUTPUT
\bar{E}	D	
L	L	L
L	H	H
H	X	Z

H = HIGH Voltage Level
 L = LOW Voltage Level
 X = Immaterial
 Z = High Impedance

DC AND AC CHARACTERISTICS: See Section 3*

SYMBOL	PARAMETER	54/74		54/74LS		UNITS	CONDITIONS
		Min	Max	Min	Max		
V_{OH}	Output HIGH Voltage	XM	2.4			V	$V_{CC} = \text{Min},$ $V_{IN} = V_{IH} \text{ or } V_{IL}$
		XC	2.4				
		XM		2.4			
		XC		2.4			
I_{OS}	Output Short Circuit Current	XM	-30 -70	-30 -130		mA	$V_{CC} = \text{Max}$
		XC	-28 -70	-30 -130			
I_{CC}	Power Supply Current		54	20		mA	Outputs OFF, $V_{IN} = \text{Gnd}$ $V_E = 4.5\text{ V}, V_{CC} = \text{Max}$
t_{PLH}	Propagation Delay		13	15		ns	Figs. 3-3, 3-5
t_{PHL}	Data to Output		18	18			
t_{PZH}	Output Enable Time		17	16		ns	Figs. 3-3, 3-11, 3-12
t_{PZL}			25	25			
t_{PLZ}	Output Disable Time		8.0	25		ns	Figs. 3-3, 3-11, 3-12
t_{PHZ}			12	25			

*DC limits apply over operating temperature range; AC limits apply at $T_A = +25^\circ\text{C}$ and $V_{CC} = +5.0\text{ V}$.