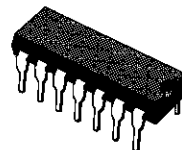
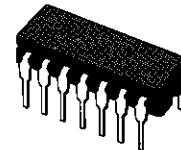


QUAD BUS BUFFERS (3-STATE)

- HIGH SPEED
 $t_{PD} = 8 \text{ ns}$ (TYP.) AT $V_{CC} = 5 \text{ V}$
- LOW POWER DISSIPATION
 $I_{CC} = 4 \mu\text{A}$ (MAX.) AT 25°C
- OUTPUT DRIVE CAPABILITY
 15 LSTTL LOADS
- BALANCED PROPAGATION DELAYS
 $t_{PLH} = t_{PHL}$
- SYMMETRICAL OUTPUT IMPEDANCE
 $I_{OL} = |I_{OH}| = 6 \text{ mA}$ (MIN.)
- HIGH NOISE IMMUNITY
 $V_{NIH} = V_{NIL} = 28\% V_{CC}$ (MIN.)
- WIDE OPERATING VOLTAGE RANGE
 $V_{CC} \text{ (OPR)} = 2 \text{ V TO } 6 \text{ V}$
- PIN AND FUNCTION COMPATIBLE
 WITH 54/74LS125/126



B1R
(Plastic Package)



F1R
(Ceramic Package)



M1R
(Micro Package)



C1R
(Chip Carrier)

ORDER CODES :

M54HCXXXF1R
M74HCXXXB1R

M74HCXXXM1R
M74HCXXXC1R

DESCRIPTION

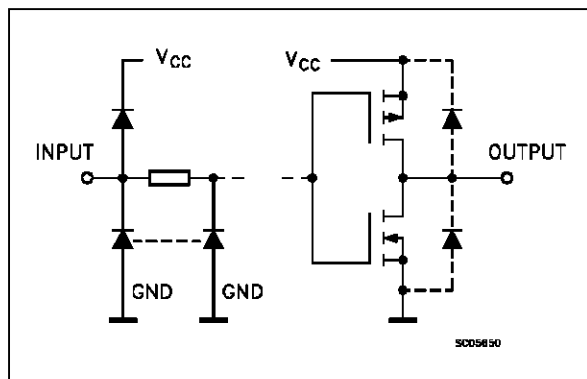
The M54/74HC125/126 are high speed CMOS QUAD BUS BUFFER (3-STATE) FABRICATED IN SILICON GATE C²MOS technology.

They have the same high speed performance of LSTTL combined with true CMOS low power consumption.

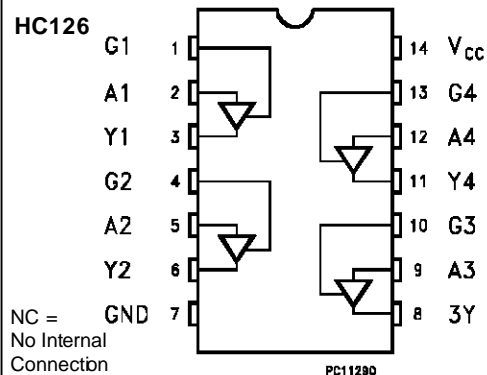
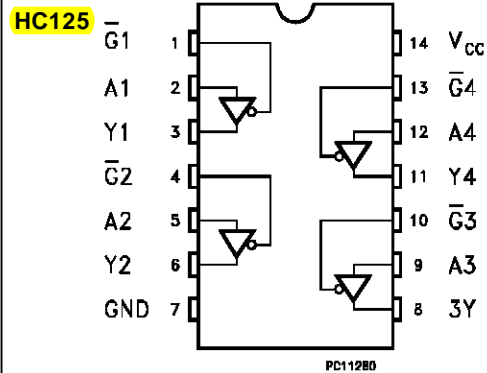
These devices require the same 3-STATE control input G to be taken high to make the output go into the high impedance state.

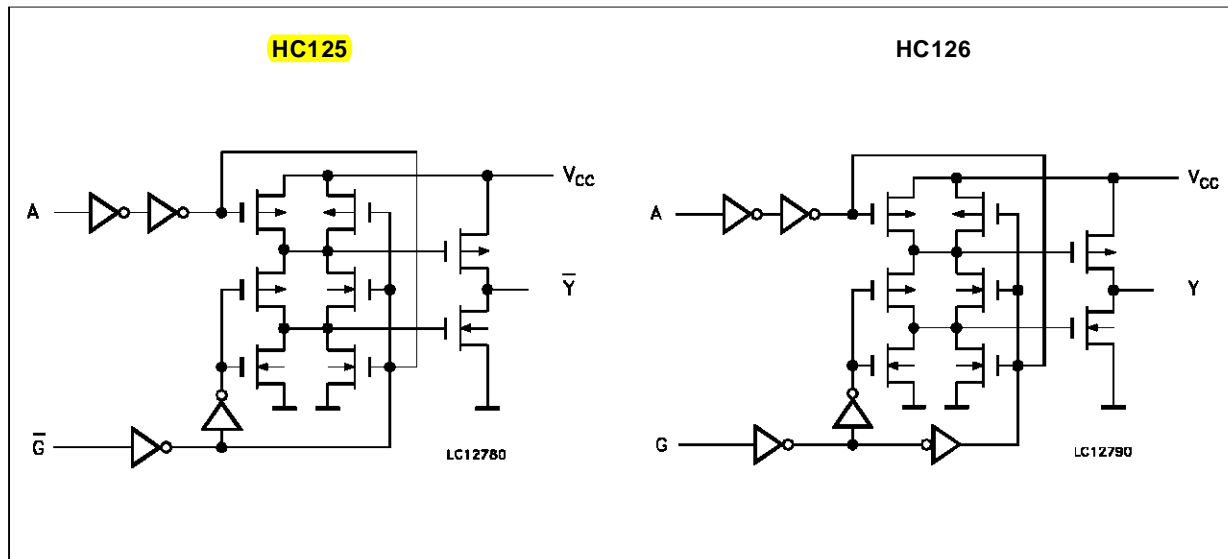
All inputs are equipped with protection circuits against static discharge and transient excess voltage.

INPUT AND OUTPUT EQUIVALENT CIRCUIT



PIN CONNECTIONS (top view)



CIRCUIT DIAGRAM**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value	Unit
V_{CC}	Supply Voltage	-0.5 to +7	V
V_I	DC Input Voltage	-0.5 to $V_{CC} + 0.5$	V
V_O	DC Output Voltage	-0.5 to $V_{CC} + 0.5$	V
I_{IK}	DC Input Diode Current	± 20	mA
I_{OK}	DC Output Diode Current	± 20	mA
I_O	DC Output Source Sink Current Per Output Pin	± 35	mA
I_{CC} or I_{GND}	DC V_{CC} or Ground Current	± 70	mA
P_D	Power Dissipation	500 (*)	mW
T_{stg}	Storage Temperature	-65 to +150	$^{\circ}\text{C}$
T_L	Lead Temperature (10 sec)	300	$^{\circ}\text{C}$

Absolute Maximum Ratings are those values beyond which damage to the device may occur. Functional operation under these condition is not implied.

(*) 500 mW: $\pm 65^{\circ}\text{C}$ derate to 300 mW by 10mW/ $^{\circ}\text{C}$: 65°C to 85°C

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Value	Unit
V_{CC}	Supply Voltage	2 to 6	V
V_I	Input Voltage	0 to V_{CC}	V
V_O	Output Voltage	0 to V_{CC}	V
T_{op}	Operating Temperature: M54HC Series M74HC Series	-55 to +125 -40 to +85	$^{\circ}\text{C}$ $^{\circ}\text{C}$
t_r, t_f	Input Rise and Fall Time	$V_{CC} = 2\text{ V}$	ns
		$V_{CC} = 4.5\text{ V}$	
		$V_{CC} = 6\text{ V}$	