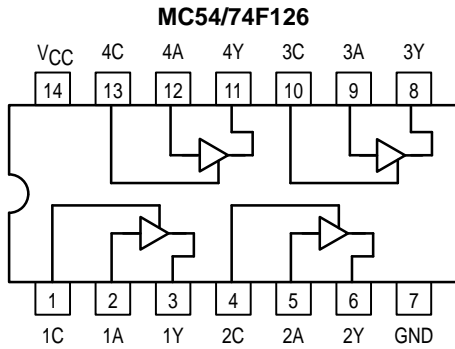
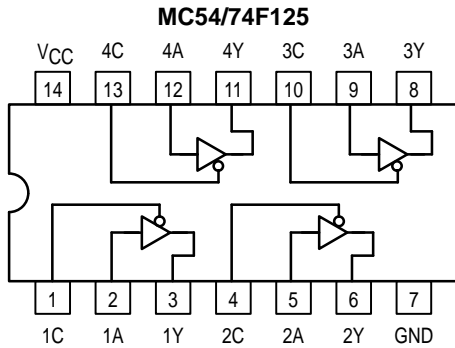




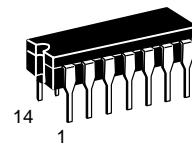
3-STATE QUAD BUFFERS

- High Impedance NPN Base Inputs for Reduced Loading

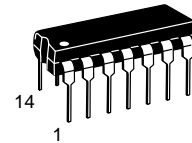


MC54/74F125 MC54/74F126

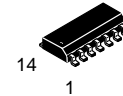
QUAD BUFFERS, 3-STATE
FAST™ SHOTTKY TTL



J SUFFIX
CERAMIC
CASE 632-08



N SUFFIX
PLASTIC
CASE 646-06



D SUFFIX
SOIC
CASE 751A-02

ORDERING INFORMATION

MC54FXXXJ Ceramic
MC74FXXXN Plastic
MC74FXXXD SOIC

GUARANTEED OPERATING RANGES

Symbol	Parameter		Min	Typ	Max	Unit
V _{CC}	Supply Voltage	54, 74	4.5	5.0	5.5	V
T _A	Operating Ambient Temperature Range	54	-55	25	125	°C
		74	0	25	70	
I _{OH}	Output Current — High	54			-12	mA
		74			-15	
I _{OL}	Output Current — Low	54			48	mA
		74			64	

MC54/74F125 • MC54/74F126

Function Table MC54/74F125

Inputs		Output
\bar{C}	A	Y
L	L	L
L	H	H
H	X	Z

Function Table MC54/74F126

Inputs		Output
C	A	Y
H	L	L
H	H	H
L	X	Z

L = LOW Voltage Level
H = HIGH Voltage Level
X = Don't Care
Z = High Impedance (off)

DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE (unless otherwise specified)

Symbol	Parameter	Limits			Unit	Test Conditions	
		Min	Typ	Max			
V _{IH}	Input HIGH Voltage	2.0			V	Guaranteed Input HIGH Voltage	
V _{IL}	Input LOW Voltage			0.8	V	Guaranteed Input LOW Voltage	
V _{IK}	Input Clamp Diode Voltage			-1.2	V	I _{IN} = -18 mA	V _{CC} = MIN
V _{OH}	Output HIGH Voltage	54,74	2.4	3.4	V	I _{OH} = -3.0 mA	V _{CC} = 4.50 V
		74	2.7	3.4	V	I _{OH} = -3.0 mA	V _{CC} = 4.75 V
		54	2.0		V	I _{OH} = -12 mA	V _{CC} = 4.50 V
		74	2.0		V	I _{OH} = -15 mA	
V _{OL}	Output LOW Voltage	54		0.55	V	I _{OL} = 48 mA	V _{CC} = MAX
		74		0.55	V	I _{OL} = 64 mA	
I _{OZH}	Output Off Current HIGH			50	μA	V _{OUT} = 2.7 V	V _{CC} = MAX
I _{OZL}	Output Off Current LOW			-50	μA	V _{OUT} = 0.5 V	V _{CC} = MAX
I _{IH}	Input HIGH Current			20	μA	V _{IN} = 2.7 V	V _{CC} = MAX
				100		V _{IN} = 7.0 V	V _{CC} = 0 V
I _{IL}	Input LOW Current			-20	μA	V _{IN} = 0.5 V	V _{CC} = MAX
I _{OS}	Output Short Circuit Current Note 2	-100		-225	mA	V _{OUT} = GND	V _{CC} = MAX
I _{CC}	F125	I _{CCH}		24	mA	V _{CC} = MAX	
		I _{CCL}		40			
		I _{CCZ}		35			
	F126	I _{CCH}		30			
		I _{CCL}		48			
		I _{CCZ}		39			

NOTES:

- For conditions shown as MIN or MAX, use the appropriate value specified under recommended operating conditions for the applicable device type.
- Not more than one output should be shorted at a time, nor for more than 1 second.

MC54/74F125 • MC54/74F126

AC ELECTRICAL CHARACTERISTICS

Symbol	Parameter		54/74F			54F		74F		Unit
			T _A = +25 °C V _{CC} = +5.0 V C _L = 50 pF			T _A = 0°C to 70°C V _{CC} = 5.0 V ± 10% C _L = 50 pF		T _A = 0°C to +70°C V _{CC} = 5.0 V ± 10% C _L = 50 pF		
			Min	Typ	Max	Min	Max	Min	Max	
t _{PLH}	Propagation Delay, nA to nY	F125	1.5	4.0	6.0	1.5	7.5	1.5	6.5	ns
t _{PHL}			3.0	5.5	7.5	3.0	9.0	3.0	8.0	
t _{PZH}	Output Enable Time to HIGH and LOW level		3.0	5.5	7.5	3.0	9.5	3.0	8.5	ns
t _{PZL}			3.0	6.0	8.0	3.0	10	3.0	9.0	
t _{PHZ}	Output Disable Time from HIGH and LOW level		1.5	3.5	5.0	1.5	7.0	1.5	6.0	ns
t _{PLZ}			1.5	3.5	5.5	1.5	7.0	1.5	6.0	
t _{PLH}	Propagation Delay, nA to nY	F126	1.5	4.0	6.5	1.5	8.0	1.5	7.0	ns
t _{PHL}			3.0	5.5	8.0	3.0	9.5	3.0	8.5	
t _{PZH}	Output Enable Time to HIGH and LOW level		3.0	6.0	7.5	3.0	9.5	3.0	8.5	ns
t _{PZL}			3.0	6.0	8.0	3.0	9.5	3.0	8.5	
t _{PHZ}	Output Disable Time from HIGH and LOW level		2.0	4.5	6.5	2.0	8.5	2.0	7.5	ns
t _{PLZ}			3.0	5.5	7.5	3.0	9.0	3.0	8.0	