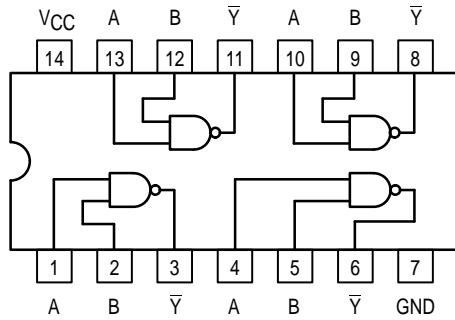




QUAD 2-INPUT NAND BUFFER, OPEN COLLECTOR



MC74F38

**QUAD 2-INPUT NAND BUFFER,
OPEN COLLECTOR**
FAST™ SCHOTTKY TTL

J SUFFIX
CERAMIC
CASE 632-08

N SUFFIX
PLASTIC
CASE 646-06

D SUFFIX
SOIC
CASE 751A-02

ORDERING INFORMATION

MC74FXXJ	Ceramic
MC74FXXN	Plastic
MC74FXXD	SOIC

GUARANTEED OPERATING RANGES

Symbol	Parameter	74	Min	Typ	Max	Unit
V _{CC}	Supply Voltage	74	4.5	5.0	5.5	V
T _A	Operating Ambient Temperature Range	74	0	25	70	°C
I _{OL}	Output Current — Low	74			64	mA

MC74F38

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	V _{CC} = MIN, I _{IN} = -18 mA
V _{OL}	Output LOW Voltage			0.55	V	I _{OL} = 64 mA, V _{CC} = MIN
I _{IH}	Input HIGH Current			20	μA	V _{CC} = MAX, V _{IN} = 2.7 V
				0.1	mA	V _{CC} = MAX, V _{IN} = 7.0 V
I _{IL}	Input LOW Current			-1.2	mA	V _{CC} = MAX, V _{IN} = 0.5 V
I _{OH}	Output HIGH Current			250	μA	V _{CC} = MIN, V _{IL} = MAX V _{IH} = MIN, V _{OH} = MAX
I _{CC}	Power Supply Current Total, Output HIGH			7.0	mA	V _{CC} = MAX, V _{IN} = GND
	Total, Output LOW			30	mA	V _{CC} = MAX, V _{IN} = Open

NOTES:

- For conditions shown as MIN or MAX, use the appropriate value specified under recommended operating conditions for the applicable device type.

AC CHARACTERISTICS

Symbol	Parameter	74F		74F		Unit
		T _A = +25°C		T _A = 0°C to 70°C		
		Min	Max	Min	Max	
		V _{CC} = +5.0 V		V _{CC} = 5.0 V ± 10%		
		C _L = 50 pF		C _L = 50 pF		
t _{PLH}	Propagation Delay	7.5	12.5	7.5	13	ns
t _{PHL}	Propagation Delay	1.0	5.0	1.0	5.5	ns

FUNCTION TABLE

Inputs		Output
A	B	\bar{Y}
L	L	H
L	H	H
H	L	H
H	H	L

H = HIGH Voltage Level
L = LOW Voltage Level
X = Don't Care