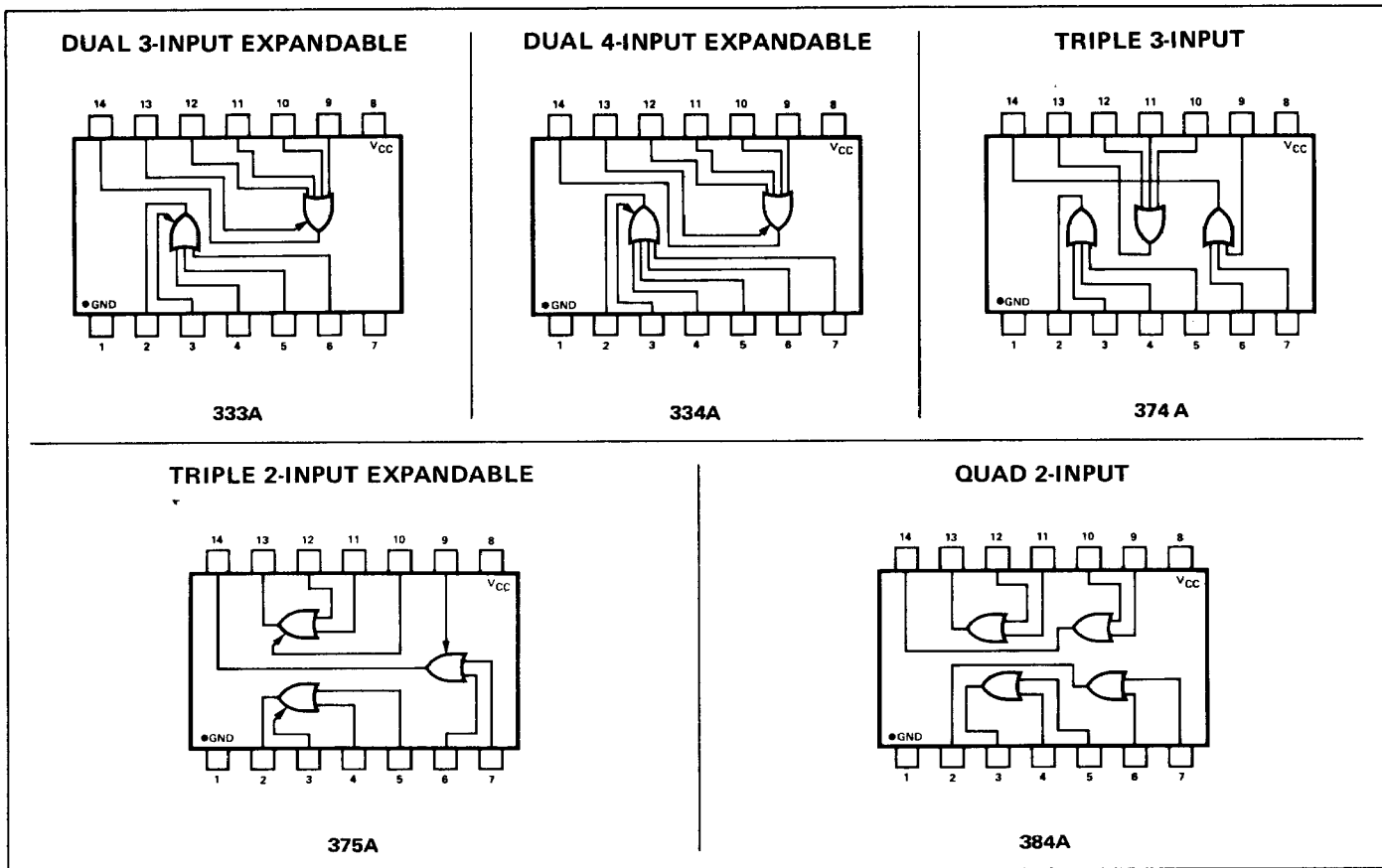


## OR GATES

- SP333A Dual 3-Input Expandable
- SP334A Dual 4-Input Expandable
- SP374A Triple 3-Input
- SP375A Triple 2-Input
- SP384A Quad 2-Input

## PIN CONFIGURATIONS



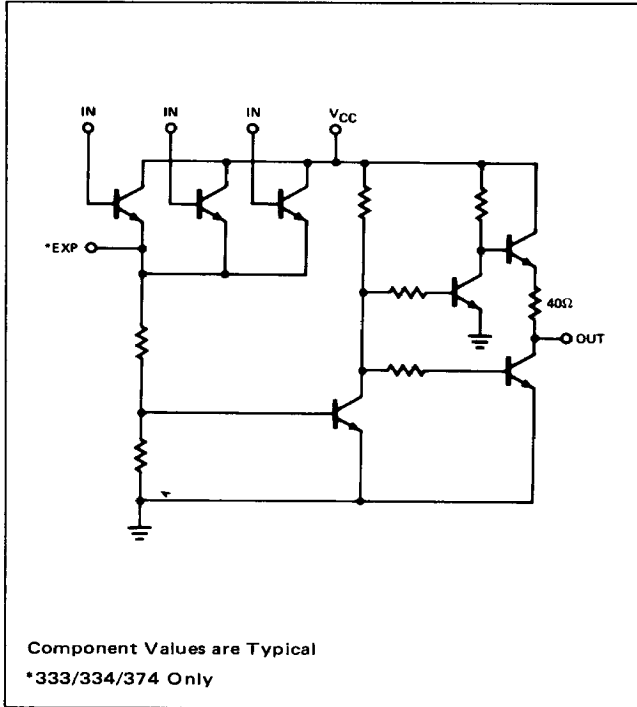
## ELECTRICAL CHARACTERISTICS (Notes 1, 2, 3, 5 and 7)

Standard Conditions:  $V_{CC} = 5.0V$ ,  $T_A = \text{Operating Temp. Range (Unless Noted)}$

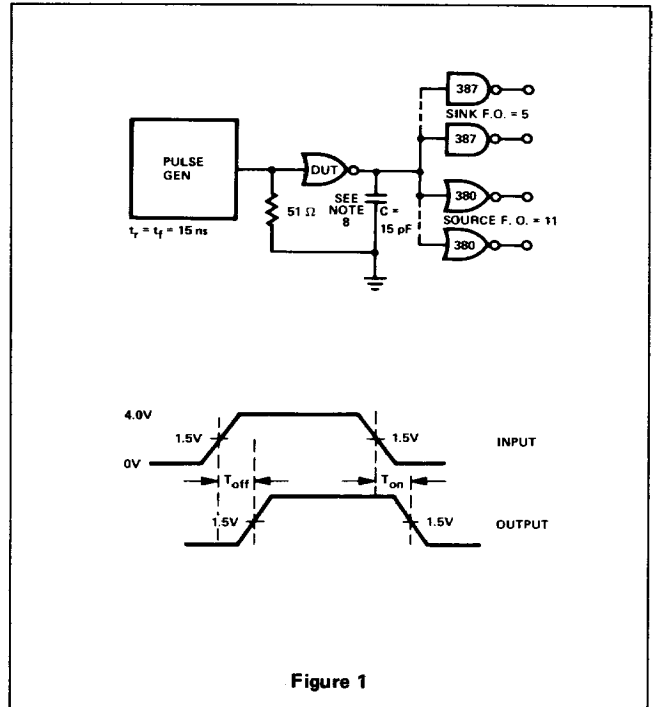
CHARACTERISTIC	TEST CONDITIONS	MIN.	TYP	MAX.	UNITS
Noise Immunity for "1"	See Note 6	1100	1700		
for "0"	See Note 6	600	1000		
Output Voltage "1" Level	$I_{out} = -2mA, V_{in} = 2.7V$	3.8			V
"0" Level	$I_{out} = 12.5mA, V_{in} = 1.2V$ $I_{out} = 7.5mA, V_{in} = 1.2V$			0.6 0.4	V V
Input Current - input high	$V_{in} = 2.7V$			180	$\mu A$
Power Supply Current output high	$V_{in} = 4.0V, T_A = 25^\circ C$		11.0	14.7	mA/gate
output low	$V_{in} = 0V, T_A = 25^\circ C$		11.2	15.2	mA/gate
Turn on Delay	See Test Figure 1, $T_A = 25^\circ C$		50	80	ns
Turn off Delay	See Test Figure 1, $T_A = 25^\circ C$		40	70	ns
Fan-out -To sink loads (2.5mA/load)				5	
-To source loads (180 $\mu A$ /load)				11	
Expander Voltage (333/334/335 only)	$V_{in} = 2.7V$	1.85			V

Typical Values are for  $T_A = 25^\circ C$ . See Page 3 for Notes.

## SCHEMATIC DIAGRAM



## TEST CIRCUIT AND WAVEFORM



The following curves are normalized, when applicable, to the standard data sheet conditions.

