

# 54/7423

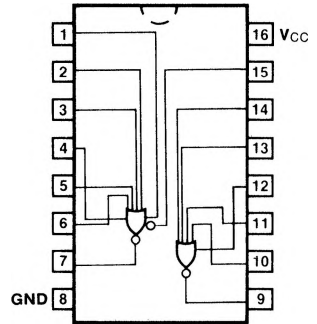
## EXPANDABLE DUAL 4-INPUT NOR GATE

(With Strobe)

**ORDERING CODE:** See Section 9

### CONNECTION DIAGRAM PINOUT A

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		$V_{CC} = +5.0\text{ V} \pm 5\%$ , $T_A = 0^\circ\text{C to } +70^\circ$	$V_{CC} = +5.0\text{ V} \pm 10\%$ , $T_A = -55^\circ\text{C to } +125^\circ\text{C}$	
Plastic DIP (P)	A	7423PC		9B
Ceramic DIP (D)	A	7423DC	5423DM	6B
Flatpak (F)	A	7423FC	5423FM	4L



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

PINS	54/74 (U.L.) HIGH/LOW
Data Inputs	1.0/1.0
Strobe Inputs	4.0/4.0
Outputs	20/10

**DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE:** Expander Inputs Open

SYMBOL	PARAMETER	54/74		UNITS	CONDITIONS	
		Min	Max		$V_{IN} = \text{Gnd}$	$V_{IN} = \text{Open}$
$I_{CCH}$ $I_{CCL}$	Power Supply Current		16 19	mA	$V_{IN} = \text{Gnd}$ $V_{IN} = \text{Open}$	$V_{CC} = \text{Max}$

**DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE: Using Expander Inputs**

SYMBOL	PARAMETER		54/74		UNITS	CONDITIONS	
			Min	Max			
V <sub>BE(Q)</sub>	Base-Emitter Voltage of Output Transistor Q	XM	1.1		V	I <sub>1</sub> = 0.41 mA I <sub>1</sub> = 0.62 mA	I <sub>OL</sub> = 16 mA R <sub>1</sub> = 0 Ω
		XC	1.0				
V <sub>OH</sub>	Output HIGH Voltage	XM	2.4		V	I <sub>1</sub> = 0.15 mA I <sub>2</sub> = -0.15 mA I <sub>1</sub> = 0.27 mA I <sub>2</sub> = -0.27 mA	I <sub>OH</sub> = -400 μA
		XC	2.4				
V <sub>OL</sub>	Output LOW Voltage	XM	0.4		V	I <sub>1</sub> = 0.3 mA R <sub>1</sub> = 138 Ω I <sub>1</sub> = 0.43 mA R <sub>1</sub> = 130 Ω	I <sub>OL</sub> = 16 mA
		XC	0.4				
I <sub>x</sub>	Expander Current	XM	-2.9		V	V <sub>1</sub> = 0.4 V, I <sub>OL</sub> = 16 mA	
		XC	-3.1				

**AC CHARACTERISTICS: V<sub>CC</sub> = +5.0 V, T<sub>A</sub> = +25°C (See Section 3 for waveforms and load configurations)**

SYMBOL	PARAMETER		54/74		UNITS	CONDITIONS	
			Min	Max			
t <sub>PLH</sub> t <sub>PHL</sub>	Propagation Delay		22 15		ns	Expander Pins Open Figs. 3-1, 3-4	