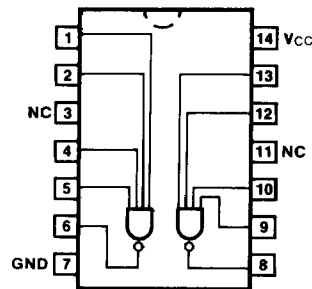


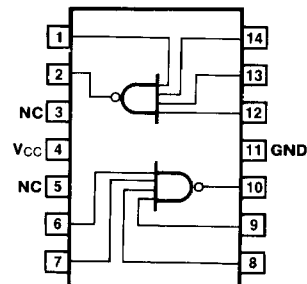
✓ 54/7422 611049  
 ✓ 54H/74H22 011051  
 ✓ 54S/74S22 011052  
 ✓ 54LS/74LS22 611050

**DUAL 4-INPUT NAND GATE**  
(With Open-Collector Output)

**CONNECTION DIAGRAMS**  
PINOUT A



PINOUT B



**ORDERING CODE:** See Section 9

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		V <sub>CC</sub> = +5.0 V ±5%, T <sub>A</sub> = 0°C to +70°C	V <sub>CC</sub> = +5.0 V ±10%, T <sub>A</sub> = -55°C to +125°C	
Plastic DIP (P)	A	7422PC, 74H22PC 74S22PC, 74LS22PC		9A
Ceramic DIP (D)	A	7422DC, 74H22DC 74S22DC, 74LS22DC	5422DM, 54H22DM 54S22DM, 54LS22DM	6A
Flatpak (F)	A	7422FC, 74S22FC 74LS22FC	5422FM, 54S22FM 54LS22FM	3I
	B	74H22FC	54H22FM	

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

PINS	54/74 (U.L.) HIGH/LOW	54/74H (U.L.) HIGH/LOW	54/74S (U.L.) HIGH/LOW	54/74LS (U.L.) HIGH/LOW
Inputs	1.0/1.0	1.25/1.25	1.25/1.25	0.5/0.25
Outputs	OC**/10	OC**/12.5	OC**/12.5	OC**/5.0 (2.5)

**DC AND AC CHARACTERISTICS:** See Section 3\*

SYMBOL	PARAMETER	54/74		54/74H		54/74S		54/74LS		UNITS	CONDITIONS	
		Min	Max	Min	Max	Min	Max	Min	Max			
I <sub>CC</sub> H	Power Supply	4.0	5.0	6.6	0.8	mA	V <sub>IN</sub> = Gnd V <sub>CC</sub> = Max					
I <sub>CC</sub> L	Current	11	20	18	2.2							
t <sub>PLH</sub>	Propagation Delay	45	15	2.0	7.5	ns	Figs. 3-2, 3-4					
t <sub>PHL</sub>		15	12	2.0	7.0				18			

\*DC limits apply over operating temperature range; AC limits apply at T<sub>A</sub> = +25°C and V<sub>CC</sub> = +5.0 V.  
\*\*OC — Open Collector