

T-43-15

51

**54/7451**  
**54H/74H51**  
**54S/74S51**  
**54LS/74LS51**

DUAL 2-WIDE, 2-INPUT AOI GATE  
 DUAL 2-WIDE, 2-INPUT/3-INPUT AOI GATE ('LS51)

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	7451PC, 74H51PC 74S51PC		9A
	B	74LS51PC		
Ceramic DIP (D)	A	7451DC, 74H51DC 74S51DC	5451DM, 54H51DM 54S51DM	6A
	B	74LS51DC	54LS51DM	
Flatpak (F)	A	74S51FC	54S51FM	3I
	B	74LS51FC	54LS51FM	
	C	7451FC, 74H51FC	5451FM, 54H51FM	

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

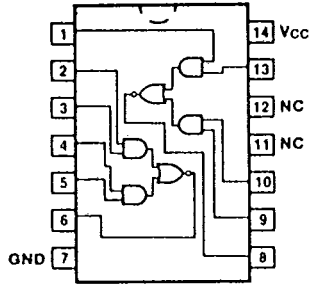
PINS	54/74 (U.L.) HIGH/LOW	54/74H (U.L.) HIGH/LOW	54/74S (U.L.) HIGH/LOW	54/74LS (U.L.) HIGH/LOW
Inputs	1.0/1.0	1.25/1.25	1.25/1.25	0.5/0.25
Outputs	20/10	12.5/12.5	25/12.5	10/5.0 (2.5)

DC AND AC CHARACTERISTICS: See Section 3\*

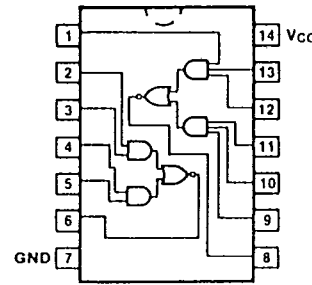
SYMBOL	PARAMETER	54/74		54/74H		54/74S		54/74LS		UNITS	CONDITIONS
		Min	Max	Min	Max	Min	Max	Min	Max		
I <sub>CC</sub> H	Power Supply Current	8.0	14	12.8	24	17.8	22	1.6	2.8	mA	V <sub>IN</sub> = Gnd V <sub>IN</sub> = Open V <sub>CC</sub> = Max
I <sub>CC</sub> L											
t <sub>PLH</sub> t <sub>PHL</sub>	Propagation Delay	22 15		11 11		2.0 2.0	5.5 5.5	20 20		ns	Figs. 3-1, 3-4

\*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.

CONNECTION DIAGRAMS  
 PINOUT A



PINOUT B



PINOUT C

