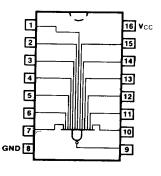


#### CONNECTION DIAGRAM PINOUT A

# 74S133 13-INPUT NAND GATE

### ORDERING CODE: See Section 9

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG
		$V_{CC} = +5.0 V \pm 5\%,$ $T_A = 0^{\circ}C \text{ to } +70^{\circ}C$	V <sub>CC</sub> = +5.0 V ±10%, T <sub>A</sub> = -55°C to +125°C	TYPE
Plastic DIP (P)	A	74S133PC, 74LS133PC		9B
Ceramic DIP (D)	A	74S133DC, 74LS133DC	54S133DM, 54LS133DM	6B
Flatpak (F)	A	74S133FC, 74LS133FC	54S133FM, 54LS133FM	4L



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

PINS	<b>54/74S (U.L.)</b> HIGH/LOW	<b>54/74LS (U.L.)</b> HIGH/LOW
Inputs Outputs	1.25/1.25 25/12.5	0.5/0.25 10/5.0 (2.5)

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

SYMBOL	PARAMETER	54/74S	54/74LS		UNITS		
		Min Max	Min I	Max	UNITS	CONDITIONS	
Іссн	Power Supply Current	5.0		0.5	mA	VIN = Gnd	
		10		1.1	1112	VIN = Open	Vcc = Max
tplH tpHL	Propagation Delay	6.0 7.0		15 38	ns	Figs. 3-1, 3-4	L

\*DC limits apply over operating temperature range; AC limits apply at  $T_A = +25^{\circ}$  C and  $V_{CC} = +5.0$  V.