SCHEMATIC (each inverter)
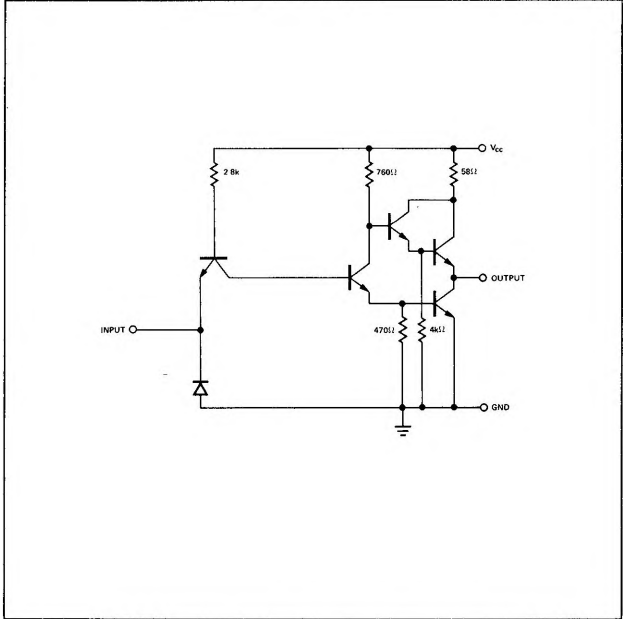
PIN CONFIGURATIONS
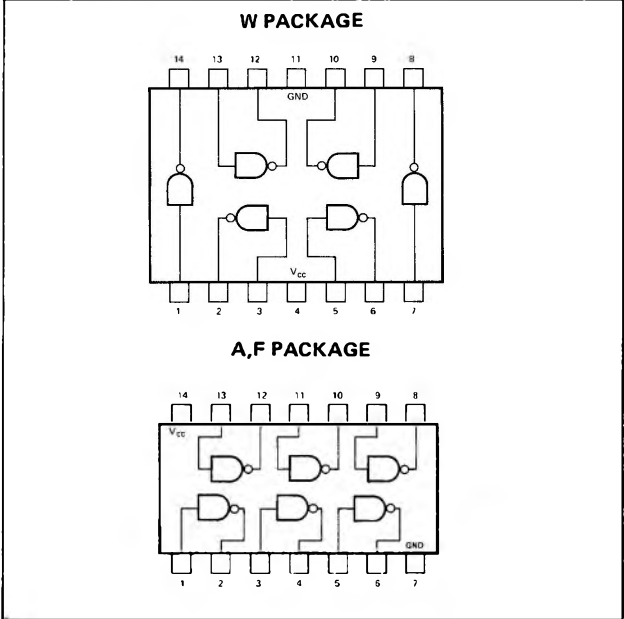
RECOMMENDED OPERATING CONDITIONS

	MIN	NOM	MAX	UNIT
Supply Voltage V_{CC}: S54H04 Circuits	4.5	5	5.5	V
N74H04 Circuits	4.75	5	5.25	V
Normalized Fan-Out from each Output, N			10	
Operating Free-Air Temperature Range, T_A: S54H04 Circuits	-55	25	125	°C
N74H04 Circuits	0	25	70	°C

ELECTRICAL CHARACTERISTICS (over recommended operating free-air temperature range unless otherwise noted)

PARAMETER		TEST CONDITIONS*		MIN	TYP**	MAX	UNIT
$V_{in(1)}$	Logical 1 input voltage required at input terminal to ensure logical 0 level at output	V_{CC} = MIN,		2			V
$V_{in(0)}$	Logical 0 input voltage required at input terminal to ensure logical 1 level at output	V_{CC} = MIN,				0.8	V
$V_{out(1)}$	Logical 1 output voltage	V_{CC} = MIN, I_{load} = −500µA	V_{in} = 0.8V,	2.4			V
$V_{out(0)}$	Logical 0 output voltage	V_{CC} = MIN, I_{sink} = 20mA	V_{in} = 2V,			0.4	V
$I_{in(0)}$	Logical 0 level input current	V_{CC} = MAX,	V_{in} = 0.4V			−2	mA
$I_{in(1)}$	Logical 1 level input current	V_{CC} = MAX,	V_{in} = 2.4V			50	µA
		V_{CC} = MAX,	V_{in} = 5.5V			1	mA
I_{OS}	Short circuit output current †	V_{CC} = MAX,		−40		−100	mA
$I_{CC(0)}$	Logical 0 level supply current	V_{CC} = MAX,	V_{in} = 4.5V,		40.0	58.0	mA
$I_{CC(1)}$	Logical 1 level supply current	V_{CC} = MAX,	V_{in} = 0,		16.0	26.0	mA

SWITCHING CHARACTERISTICS, V_{cc} = 5V, T_A = 25°C, N = 10

PARAMETER		TEST CONDITIONS		MIN	TYP	MAX	UNIT
t_{pd0}	Propagation delay time to logical 0 level	C_L = 25pF,	R_L = 280Ω		6.5	10	ns
t_{pd1}	Propagation delay time to logical 1 level	C_L = 25pF,	R_L = 280Ω		9.0	13.0	ns

* For conditions shown as MIN or MAX, use the appropriate value specified under recommended operating conditions for the applicable device type.
** All typical values are at V_{cc} = 5V, T_A = 25°C.
† Not more than one output should be shorted at a time.