

QUAD 2-INPUT HIGH VOLTAGE NAND GATE

S5426 N7426

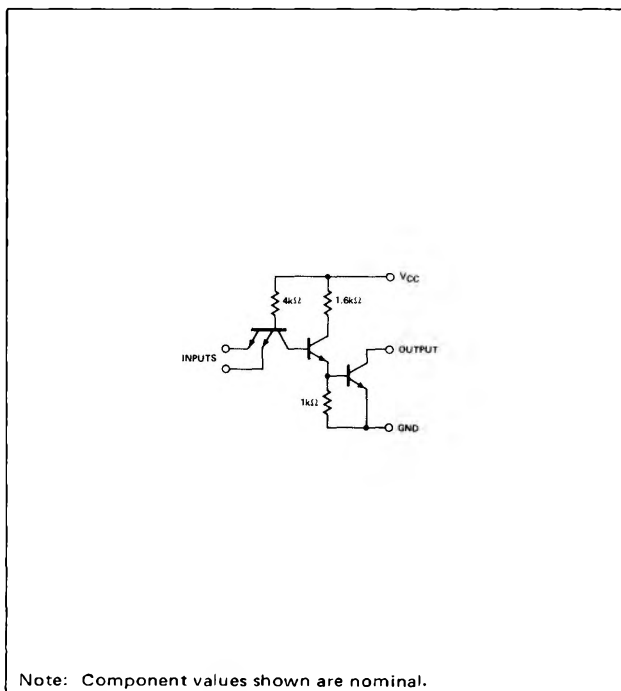
S5426-A,F • N7426-A,F

DIGITAL 54/74 TTL SERIES

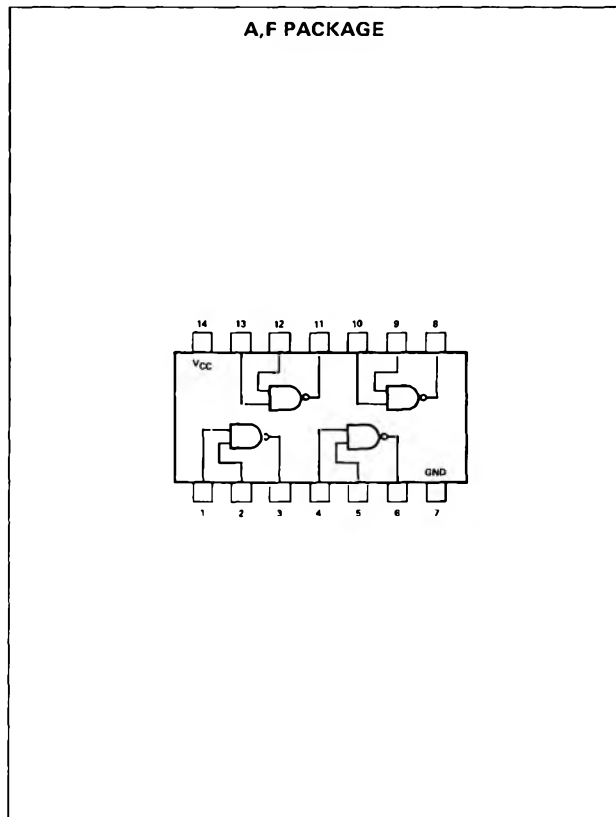
DESCRIPTION

The 54/7426 Quad 2-Input NAND Gate features standard TTL inputs with high voltage (15 volts) open collector outputs for interface with MOS, lamps or relays.

SCHEMATIC (each gate)



PIN CONFIGURATION



RECOMMENDED OPERATING CONDITIONS

	S5426			N7426			UNIT
	MIN	NOM	MAX	MIN	NOM	MAX	
Supply Voltage	4.5	5	5.5	4.75	5	5.25	V
Output Voltage, V_{OH}			15			15	V
Low-Level Output Current, I_{OL}			16			16	mA
Operating Free-Air Temperature Range, T_A	-55	25	125	0	25	70	°C

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

PARAMETER	TEST CONDITIONS*	MIN	TYP**	MAX	UNIT
V_{IH}	High-level input voltage	2			V
V_{IL}	Low-level input voltage			0.8	V
V_{OH}	High-level output voltage	$V_{CC} = \text{MIN}, V_{IL} = 0.8V, I_{OH} = 1mA$	15		V
I_{OH}	High-level output current	$V_{CC} = \text{MIN}, V_{IL} = 0.8V, V_{OH} = 12V$		50	μA
V_{OL}	Low-level output voltage	$V_{CC} = \text{MIN}, V_{IH} = 2V, I_{OL} = 16mA$		0.4	V
I_{IH}	High-level input current	$V_{CC} = \text{MAX}, V_1 = 2.4V$		40	μA
I_{IH}	(each input)	$V_{CC} = \text{MAX}, V_1 = 5.5V$		1	mA
I_{IL}	Low-level input current	$V_{CC} = \text{MAX}, V_1 = 0.4V$		-1.6	mA
I_{CCH}	Supply current, high-level output	$V_{CC} = \text{MAX}, V_1 = 0$	4	8	mA
I_{CCL}	Supply current, low-level output	$V_{CC} = \text{MAX}, V_1 = 5V$	12	22	mA

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SWITCHING CHARACTERISTICS, $V_{CC} = 5V, T_A = 25^\circ C$

PARAMETER		TEST CONDITIONS		MIN	TYP	MAX	UNIT
t_{PLH}	Propagation delay time, low-to-high-level output	$C_L = 15pF,$	$R_L = 1k\Omega$		16	24	ns
t_{PHL}	Propagation delay time high-to-low-level output	$C_L = 15pF,$	$R_L = 1k\Omega$		11	17	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 $V_{CC} = 5V, T_A = 25^\circ C$.