



Signetics Integrated Circuits DTL

These are a group of DTL integrated circuits intended for use in high-speed, low-power digital systems. Each device is fabricated within a single monolithic silicon chip by the planar technique. These DTL products include the (8)100 Series, 700 Series, and (8)400 Series.

FUNCTIONS AND CHARACTERISTICS

FUNCTION	TYPE/PKG	OUTPUT CURRENT mA	POWER DISSIPATION
4-Input NAND/NOR Gate	101/H,I	100	—
3-Input NAND/NOR Gate	102/H,I	100	—
6-Input Gate Expander	105/H,I	—	—
Dual 5-Input Gate Expander	106/C,D	30	250
3-Input NAND/NOR Gate	110/H,I	100	—
Dual 4-Input NAND/NOR Gate	111/C,D	125	250
Dual 3-Input NAND/NOR Gate	112/C,D	125	250
Dual 3-Input NAND/NOR Gate	113/I	100	—
Dual 2-Input NAND/NOR Gate	115/H,I	100	—
Dual 4-Input NAND/NOR Gate	116/C,D	100	250
RS/T Binary Element	124/C,D,H,I	100	250
J-K Binary Element	125/C,D	100	250
2-Input Clock/Capacitive Line Driver	150/H,I	100	—
Dual 4-Input Clock/Capacitive Line Driver	155/C,D	125	250
Dual 4-Input Clock/Capacitive Line Driver	156/C,D	125	250
Dual 3-Input Clock/Capacitive Line Driver	157/I	100	—

MAXIMUM RATINGS

Rating	Value	Unit
Input Current	± 30	mA
Input Voltage - V_{in}	8.0	V
Output Voltage - V_{out}	8.0	V
Storage Temperature - T_{stg}	-65 to +175	$^{\circ}\text{C}$
Operating Temperature - T_A	-55 to +125	$^{\circ}\text{C}$

PACKAGING AVAILABLE

(See page 87):

C -14-LEAD DUAL INLINE D -14-LEAD FLAT PACK
H -10-LEAD FLAT PACK I -10-LEAD CAN

DTL

DTL FUNCTIONS AND CHARACTERISTICS (continued)

FUNCTION	TYPE/PKG	OUTPUT CURRENT mA	POWER DISSIPATION
Monostable Multivibrator	160/H,I	50	250
Monostable Multivibrator	161/C,D,I	50	250
Monostable Multivibrator	162/C,D	50	250
Triple 3-Input NAND/NOR Gate	170/C,D	100	250
Quad 2-Input NAND/NOR Gate	180/C,D	100	250
Quad Inverter	181/I	100	—
Dual 5-Input NAND Gate	415/C,D	30	—
Dual Expandable 4-Input NAND Gate	416/C,D	30	—
Dual 3-Input NAND/NOR Gate	417/C,D	30	—
Dual Exclusive-OR Gate	440/C,D	30	—
Dual 4-Input Buffer/Driver	455/C,D	100	—
Triple 3-Input NAND Gate	470/C,D	—	—
Triple 3-Input NAND Gate	471/C,D	30	—
Quad 2-Input NAND Gate	480/C,D	30	—
Quad 2-Input NAND Gate	481/C,D	30	—
Hex Inverter	490/C,D	30	—
Dual 3-2-Input NAND/NOR Gate	700/H,I	100	—
Dual 3-2-Input NAND/NOR Gate	701/H,I	100	—
RS/T Binary Element	704/H,I	100	250
Dual 3-Input Gate Expander	705/H,I	—	—
Dual 3-Input Gate Expander	709/H,I	—	—
Dual 2-Input NAND/NOR Gate	716/I	100	—
Quad 2-Input NAND Gate	720/C,D	100	250
Triple 3-Input NAND/NOR Gate	721/C,D	100	250
Triple 2-Input NAND/NOR Gate	727/C,D	100	250
RS/T Binary Element	729/C,D	100	250
Dual 5-Input NAND/NOR Gate	730/C,D	100	250
Quad 2-Input Gate Expander	731/C,D	30	250

DTL FUNCTIONS AND CHARACTERISTICS (continued)

FUNCTION	TYPE/PKG	OUTPUT CURRENT mA	POWER DISSIPATION
12-Input Gate Expander	732/C,D	30	250
Monostable Multivibrator	8162/C,D	50	250
Dual 5-Input NAND Gate	8415/C,D	30	—
Dual Expandable 4-Input NAND Gate	8416/C,D	30	—
Dual 3-Input NAND/NOR Gate	8417/C,D	30	—
Dual Exclusive-OR Gate	8440/C,D	30	—
Dual 4-Input Buffer/Driver	8455/C,D	100	—
Triple 3-Input NAND Gate	8470/C,D	—	—
Triple 3-Input NAND Gate	8471/C,D	30	—
Quad 2-Input NAND Gate	8480/C,D	30	—
Quad 2-Input NAND Gate	8481/C,D	30	—
Hex Inverter	8490/C,D	30	—