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NTE9936 **Integrated Circuit** **DTL, Hex Inverter**

Description:

The NTE9936 is a Diode Transistor Logic (DTL) Hex Inverter integrated circuit in a 14-Lead DIP type package. This device provides an excellent balance of speed, power dissipation, and noise immunity for general purpose digital application.

Absolute Maximum Ratings:

Supply Voltage	
Operating	4.5 to 5.5V
Continuous	8.0V
Pulsed (Less Than 1sec)	12V
Output Current (Into Outputs with Outputs Low)	
Continuous	30mA
Pulsed (Less Than 30ms)	90mA
Input Forward Current	
Continuous	-10mA
Pulsed (Less Than 30ms)	-30mA
Negative Voltage at Input	
Continuous	-0.5V
Pulsed (Less Than 30ms)	-1.58V
Input Reverse Current	1.0mA
Total Power Dissipation	66mW
Positive Voltage at Diode Input	5.5V
Maximum Junction Temperature	+150°C
Operating Temperature Range	0° to +75°C
Storage Temperature Range	-55° to +125°C

Electrical Chracteristics: ($V_{CC} = 5V$, $T_A = +25^{\circ}C$ unless otherwise spcified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_{OL}	$I_{OL} = 12mA$, $V_{IH} = 1.9V$	–	–	0.45	V
	V_{OH}	$I_{OH} = -120mA$, $V_{IL} = 1.1V$	2.6	–	–	V
Short–Circuit Current	I_{SC}		–	–	–1.3	mA
Reverse Current	I_R	$V_R = 4V$	–	–	5	μA
Output Leakage Current	I_{CEX}	$V_{CEX} = 5V$	–	–	100	μA
Forward Current	I_F	$V_F = 450mV$	–	–	–1.4	mA
Power Drain Current (Total Device)	I_{PDH}		–	–	24	mA
Switching Times	$t_{pd(+)}$	$I_{OL} = 12mA$ (Pulse In), $I_{OH} = -120mA$ (Pulse Out)	25	–	80	ns
	$t_{pd(-)}$		10	–	30	ns

