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NTE2080 Integrated Circuit 7-Stage Driver Array

Features:

- Low Output Saturation Voltage
- Protective Diodes Guard Against Negative Inputs
- Spark Killer Diodes Accommodate L-Loads
- Equipped with a Strobe Terminal to Cut Off Outputs
- With 7 Units, it is Ideal for 14-Digit Printers

Applications:

- Driving Battery-Operated Compact Printers
- Driving Various Relays
- Driving LED Lamps and Other Display Elements
- Interfacing with MOS or Bipolar Logic IC

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Output Supply Voltage, V_{OUT}	-0.3V to +11V
Input Supply Voltage, $V_{IN(1)}$	-35V to +20V
Strobe Supply Voltage, $V_{IN(2)}$	0V to +10V
Maximum Power Supply Voltage, V_{CCmax}	-0.3V to +9V
Output Inflow Current (Per Unit, at V_{IH}), I_{OUT}	100mA
Instantaneous Output Inflow Current (Per Unit, Note 1), I_{op}	150mA
Spark-Killer Diode Forward Current (Per Unit, Note 1), $I_{F(s)}$	150mA
GND-Pin Outflow Current (Note 1), I_g	-1050mA
V_{CC} Instantaneous Outflow Current (Note 1), I_{ccp}	-1050mA
Allowable Power Dissipation ($T_A = +55^\circ\text{C}$), P_{Dmax}	500mW
Operating Ambient Temperature Range, T_{opg}	-20° to +80°C
Storage Ambient Temperature Range, T_{stg}	-40° to +125°C

Note 1. Pulse Width < 35ms at V_{IH} , Duty Cycle = 10%.

Allowable Operating Conditions: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Supply Voltage, V_{CC}	3.5V to 9V
Input H-Level Voltage ($I_{OUT} = 100\text{mA}$), V_{IH}	8V to 20V
Input L-Level Voltage ($I_{OUT} = 100\mu\text{A}$), V_{IL}	-30V to +1V
ST Input H-Level ($V_{IN} = 20\text{V}$, $I_{OUT} = 100\mu\text{A}$), V_{SH}	2V to 8V
ST Input L-Level ($V_{IN} = 20\text{V}$, $I_{OUT} = 100\mu\text{A}$), V_{SL}	0V to 0.3V
Load Inductance ("L" With Spark-Killer Diodes Employed), L_L	$\leq 100\text{mH}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_{OUT}	$V_{IN} = 8\text{V}, V_{CC} = 6\text{V}, I_{OUT} = 100\text{mA}$	-	-	0.25	V
		$I_{IN} = 300\mu\text{A}, V_{CC} = 6\text{V}, I_{OUT} = 100\text{mA}$	-	-	0.25	V
		$I_{IN} = 300\mu\text{A}, V_{CC} = 8\text{V}, I_{OUT} = 150\text{mA}$	-	-	0.5	V
Output Sustaining Voltage	$V_{O(sus)}$	$V_{IN} = \text{Open}, t < 10\mu\text{s}, I_{OUT} = 150\text{mA}$	11	-	-	V
Output Leakage Current	I_{off}	$V_{IN} = 1\text{V}, V_{CC} = 9\text{V}$	-	-	100	μA
Input Current	I_{in}	$V_{IN} = 20\text{V}, I_{OUT} = 0$	-	-	1.8	mA
Input Leakage Current	I_{Leak}	$V_{IN} = -30\text{V}$	-10	-	-	μA
Spark-Killer Diode Leakage Current	$I_{leak(s)}$	$V_{OUT} = 0, V_{CC} = 8\text{V}$	-	-	30	μA
Spark-Killer Diode Forward Voltage	$V_{F(s)}$	$I_{F(s)} = 150\text{mA}$	-	-	1.7	V
Power Supply Current Strobe HI	I_{IDL}	$V_{IN} = 20\text{V}, V_{CC} = 9\text{V}$	-	-	18	mA

Pin Connection Diagram

