ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE2081
Integrated Circuit
7–Stage Driver Array

Features:
- Low Output Saturation Voltage
- Built–In Diodes for Absorption of Output Surge
- Built–In Base Current Limiting Resistor (3kΩ Typ)
- With 7 Units, it is Ideal for 14–Digit Printers

Applications:
- Driving Battery–Operated Compact Printers (Especially LCD Type)
- Driving Various Relays
- Driving LED Lamps and Other Display Elements
- Interfacing with MOS or Bipolar Logic IC

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Output Supply Voltage, V_{OUT} . . . . . –0.3V to +11V
Input Supply Voltage, V_{IN} . . . . . –0.3V to +8V
Maximum Power Supply Voltage, V_{CC}max . . . . . –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_8 . . . . . –1050mA
V_{CC} Instantaneous Outflow Current (Note 1), I_{ccp} . . . . . –1050mA
Allowable Power Dissipation (T_A = +55°C), $P_D$max 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°C unless otherwise specified)

Supply Voltage, V_{CC} . . . . . 3.5V to 9V
Input H–Level Voltage (I_{OUT} = 100mA), V_{IH} 8V
Input L–Level Voltage (I_{OUT} = 100μA), V_{IL} . . . . . –0.3V to +0.7V
Minimum Input Current At “L” Level Output (I_{OUT} = 100mA, V_{OUT} = 0.25V, V_{CC} = 6V), I_{IN} . . 0.2mA
Load Inductance (“L” With Spark–Killer Diodes Employed), L_L . . . . . ≤ 100mH

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_{OUT}	V_{IN} = 3V, V_{CC} = 6V, I_{OUT} = 100mA	–	–	0.25	V
		V_{IN} = 3V, V_{CC} = 8V, I_{OUT} = 150mA	–	–	0.50	V
		I_{IN} = 0.2mA, V_{CC} = 6V, I_{OUT} = 100mA	–	–	0.25	V
Output Sustaining Voltage	$V_{O(sus)}$	V_{IN} = Open, t < 10µs, I_{OUT} = 150mA	11	–	–	V
Output Leakage Current	t_{off}	V_{IN} = 0.7V, V_{CC} = 9V	–	–	100	µA
Input Current	I_{In}	V_{IN} = 7V, I_{OUT} = 0	–	1.8	3.0	mA
Spark–Killer Diode Leakage Current	$I_{leak(s)}$	V_{OUT} = 0, V_{CC} = 8V	–	–	30	µA
Spark–Killer Diode Forward Voltage	$V_{F(s)}$	$I_{F(s)}$ = 150mA	–	–	1.7	V

Pin Connection Diagram