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NTE2082 Integrated Circuit 6-Stage Darlington Transistor Array

Features:

- Ideally suited for 18-digit printer because of built-in 6 units.
- Built-in protective diodes against negative inputs.
- Ideally suited for printer mechanism with load current of 85mA.

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

Output Supply Voltage, V_{OUT} -0.3V to +22V
Input Supply Voltage, V_{IN} -40V to +12V
Pin 8 Supply Voltage, V_{CC} -0.3V to +20V
Output Flow-In Current (Per Unit), I_{OUT} 100mA
Instantaneous Output Flow-In Current (Note 1), I_{OP} 150mA
Spark Killer Diode Forward Current (Note 1), $I_{F(S)}$ 150mA
GND Pin Flow-Out Current (Note 1), I_{GP} -900mA to 0mA
Pin 8 Instantaneous Flow-Out Current (Note 1), I_{CCP} -900mA to 0mA
Pin 8 Flow-Out Current, I_{CC} -600mA to 0mA
Allowable Power Dissipation, P_{Dmax} 770mA
Operating Temperature Range, T_{opr} -20° to $+80^{\circ}\text{C}$
Storage Temperature Range, T_{stg} -40° to $+125^{\circ}\text{C}$
Note 1. Per Unit, Duty = 10% Pulse Width < 20ms

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Supply Voltage	V_{OUT}		-	-	22	V
Input High Level Voltage	V_{IH}	Output Pin Current = 100mA	3 to 12			V
Input Low Level Voltage	V_{IL}	Output Pin Current = 100 μ A	-35 to +1			V
Load Inductance	L_L	Using Protective Diode	-	-	100	mH

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	$V_{OUT(1)}$	$V_{IN} = 3\text{V}, I_{OUT} = 150\text{mA}$	–	–	1.7	V
	$V_{OUT(2)}$	$V_{IN} = 3\text{V}, I_{OUT} = 100\text{mA}$	–	–	1.4	V
Output Sustain Voltage	$V_{OUT(3)}$	$V_{IN} = \text{open}, I_{OUT} = 150\text{mA}$ Applied time < 10 μs	22	–	–	V
Output Leakage Current	I_{off}	$V_{IN} = 1\text{V}, V_{OUT} = 22\text{V}$	–	–	100	μA
Input Current	I_{IN}	$V_{IN} = 3\text{V}$	–	–	1	mA
Output Current	I_{OUT}	$I_{IN} = 0.3\text{mA}, V_{OUT} = 1.4\text{V}$	100	–	–	mA
Input Leakage Current	I_{leak}	$V_{IN} = -35\text{V}$	-10	–	–	μA
Speak Killer Diode Leakage Current	$I_{leak(s)}$	$V_{OUT} = 0\text{V}, \text{Pin } 8 = 20\text{V}$	–	–	30	μA
Speak Killer Diode Forward Voltage	$V_{F(S)}$	$I_{F(3)} = 150\text{mA}$	–	–	1.7	V

Pin Connection Diagram

