



**ELECTRONICS, INC.**  
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## NTE1825 Integrated Circuit Dual, DC Motor Driver

### **Features:**

- Linear Output Proportional to Input Voltage
- Brake Function Available at Input Open Mode
- Brake Function Available at the Time of Simultaneous Application of Input of Forward/Reverse Rotation
- Brake Function Available at Forward Rotation Mode
- Wide Operating Supply Voltage Range: 3V to 24V
- High Current Gain
- Excellent Stability of Output Voltage in Intermediate Region
- Low Current Dissipation at Braking Mode

### **Applications:**

- Forward/Reverse Rotation of DC Motors (VCR's, VD's, Printers)
- Forward Rotation (With Brake Function) of DC Motors

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

Supply Voltage (Quiescent), $V_{CC}$ .....	25V
Input Applied Voltage, $V_{in}$ .....	25V
Output Current, $I_C$ .....	2A
Power Dissipation ( $T_C = +25^\circ\text{C}$ , Note 1), $P_D$ .....	7.5W
Operating Case Temperature, $T_C$ .....	+100°C
Junction Temperature, $T_J$ .....	+150°C
Storage Temperature Range, $T_{stg}$ .....	-40° to +125°C

Note 1.  $P_D$ : Value for each of TR3, TR6, TR9, and TR13.

### **Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ , $V_{CC} = 12\text{V}$ , $R_L = 10\Omega/\text{Ch}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_{CCO}$	$V_{in} = \text{Open}$	18	23	30	mA
Input Current	$I_{i-1}$	$I_O = 500\text{mA}$	–	170	350	$\mu\text{A}$
	$I_{i-2}$	$I_O = 900\text{mA}$ , $V_{in} = 12\text{V}$	–	0.34	0.7	mA
Input Voltage	$V_i$	$I_{OUT} = 500\text{mA}$	–	6.45	7.20	V
Output Saturation Voltage	$V_{st-1}$	$I_{in} = 1\text{mA}$ , $V_{in} = 12\text{V}$	–	1.37	2.00	V
	$V_{st-2}$	$I_{in} = 1\text{mA}$ , $V_{in} = 12\text{V}$	–	0.4	1.0	V
Diode Forward Voltage	$V_{df}$	$I_f = 1\text{A}$	–	1.2	1.8	V

**Pin Connection Diagram**  
(Front View)

