



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

## NTE15006 Integrated Circuit Dual, Bi-Directional Motor Driver

**Description:**

The NTE15006 is a dual bidirectional motor driver. Since each channel has a 2-input logic circuit and performs bidirectional driving and braking functions, it is capable of direct driving motors of various types rated at 6V to 24V. The output voltage can be varied by the use of external zener diodes.

This device is especially suited for dual motor drive (reel motor, loading motor, cassette motor in VCR) and for stepping motor drive applications.

**Features:**

- Able to Withstand 1A (Max) Dash Current with Contained Motor Drive Power Transistor
- Performs Braking Function at the Motor Stop Mode
- Contains Elements to Absorb Motor Dash Current
- Direct Input Connection for MOS LSI
- Minimum Number of External Parts Required
- Wide Operating Voltage Range

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

Maximum Supply Voltage, $V_{CCmax}$ .....	25V
Input Voltage, $V_{IN}$ .....	25V
Output Current, $I_O$ .....	$\pm 1A$
Allowable Power Dissipation, $P_{Dmax}$ .....	1.9W
Operating Temperature range, $T_{opr}$ .....	$-25^\circ$ to $+75^\circ$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ to $+125^\circ\text{C}$

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

Supply Voltage, $V_{CC}$ .....	7V to 25V
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**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Current Dissipation	$I_{CC}$	Braking Mode, $R_L = \infty$ (Per Channel)	–	7	10	mA
Output Leakage Current	$I_{OL}$	Braking Mode, $R_L = \infty$ (Per Channel)	–	40	120	$\mu\text{A}$
Input Threshold Voltage	$V_{th}$	$R_L = \infty$	0.9	1.05	1.20	V
Output Voltage	$V_O$	$R_L = 60\Omega$ , $V_Z = 7.4V$	6.5	7.2	7.5	V
Output Transistor Saturation Voltage Upper	$V_{sat1}$	$I_{OUT} = 300\text{mA}$	–	1.9	2.3	V
		$I_{OUT} = 500\text{mA}$	–	2.0	2.4	V
Output Transistor Saturation Voltage Lower	$V_{sat2}$	$I_{OUT} = 300\text{mA}$	–	0.3	0.55	V
		$I_{OUT} = 500\text{mA}$	–	0.5	0.7	V

### Pin Connection Diagram

