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## NTE1748 Integrated Circuit DC Motor Driver

**Features:**

- Linear or Logic Operation
- Bi-Directional Drive Capability

**Applications:**

- DC Motor for VCR, CD

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

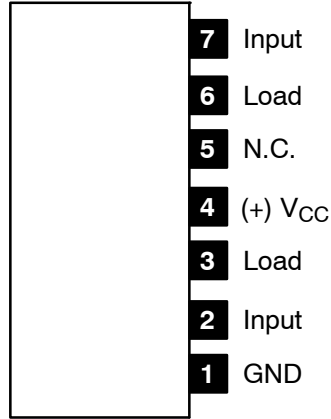
Supply Voltage (Quiescent), $V_{CC}$ .....	25V
Input Supply Voltage, $V_{in}$ .....	25V
Output Current, $I_C$ .....	2A
Power Dissipation ( $T_C = +25^{\circ}\text{C}$ , Note 1), $P_d$ .....	7.5W
Operating Case Temperature, $T_C$ .....	+100°C
Junction Temperature, $T_J$ .....	+150°C
Storage Temperature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

Note 1.  $P_d$  is for 1 pc. of TR3, TR6.

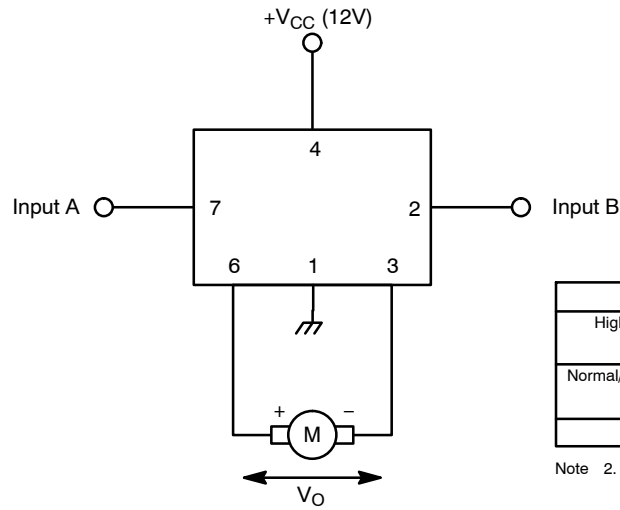
**Electrical Characteristics:** ( $T_A = +25^{\circ}\text{C}$ ,  $V_{CC} = 12\text{V}$ ,  $R_L = 10\Omega$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_{CCO}$	$V_{in} = \text{Open}$	-	11.5	15.0	mA
Input Current 1	$I_i (1)$	$I_O = 500\text{mA}$	-	170	350	$\mu\text{A}$
Input Current 2	$I_i (2)$	$I_O = 900\text{mA}$ , $V_{in} = 12\text{V}$	-	0.34	0.7	mA
Input Voltage	$V_i$	$I_O = 500\text{mA}$	-	6.45	7.2	V
Output Saturation Voltage 1	$V_{sat} (1)$	$I_{in} = 1\text{mA}$ , $V_{in} = 12\text{V}$	-	1.37	2.0	V
Output Saturation Voltage 2	$V_{sat} (2)$	$I_{in} = 1\text{mA}$ , $V_{in} = 12\text{V}$	-	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)



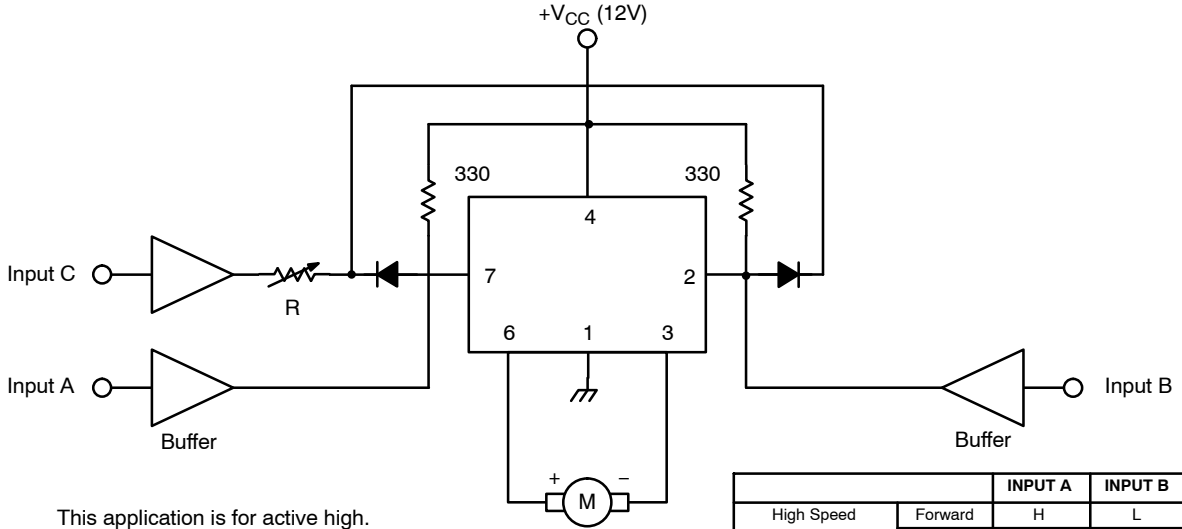
### Linear Input Application



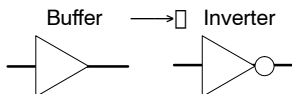
		INPUT A	INPUT B
High Speed	Forward	H	L
	Reverse	L	H
Normal/Low Speed	Forward	MH	L
	Reverse	L	MH
Brake Standby		L	L

Note 2. L: 0V  
H: 12V  
MH:  $\approx V_O$

### Logic Input Application



This application is for active high.  
For active low, change as follows:



		INPUT A	INPUT B	INPUT C
High Speed	Forward	H	L	H
	Reverse	L	H	H
Normal/Low Speed	Forward	H	L	L
	Reverse	L	H	L
Brake Standby		L	L	L

Note 3. L: 0V  
H: 5V

