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NTE7091 Integrated Circuit Dual, Bi-Directional Motor Driver

Description:

The NTE7091 is an integrated circuit in a 10-Lead SIP type package designed for forward/reverse direction select driver by switching motor 1 or motor 2 with a brush. Forward/reverse direction select of motor 1 or motor 2 can be made by 3-bit input logic. It also assures five outputs of both brakes and is suitable for VCR tape loading and cassette loading, video disc players, etc.

Features:

- Wide Range of Operating Supply Voltage: $V_{CC(opr)} = 4V$ to $20V$
- Forward and Reverse Drive of Motor 1 or Motor 2 by 3-Bit Input.
- Built-In Thermal Protection Circuit.

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

Supply Voltage (1), V_{CC1}	-0.5 to +24V
Supply Voltage (2), V_{CC2}	-0.5 to +24V
Supply Current (1), I_{CC1}	20mA
Input Voltage, V_I	-0.5 to $V_{CC1}V$
Motor Rush Allowable Current, I_{OP}	$\pm 1.6A$
Motor Ordinal Current, I_O	$\pm 600mA$
Power Dissipation, P_D	1100mW
Operating Ambient Temperature Range, T_{opr}	-20° to $+75^\circ C$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ C$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_{CC1}	$V_4 = V_5 = V_6 = 1V, I_O = 0mA,$ $V_{CC1} = V_{CC2} = 12V$	-	7	20	mA
Output Leakage Current	$I_{O(leak)}$	$V_{CC1} = V_{CC2} = 20V,$ Output Open, $V_O = 0$ or $20V$	-	-	± 100	μA
Low Level Output Voltage	V_{OL}	$I_{OL} = 500mA$	-	-	1.5	V
High Level Output Voltage	V_{OH}	$I_{OH} = -500mA$	10	-	-	V
Output Offset Voltage	$V_{O(offset)}$	$V_R = 6V, I_{OH} = -500mA$	-0.5	-	+0.5	V
8-Pin Output Current	I_R	$V_R = 6V, I_{OH} = -500mA$	-1.4	-	-0.6	mA

Note 1. Operating Supply Voltage Range: $V_{CC(opr)} = 4V$ to $20V$

Pin Connection Diagram
(Front View)

