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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°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} . . . . . ±1.6A
Motor Ordinal Current, I_O . . . . . ±600mA
Power Dissipation, P_D 1100mW
Operating Ambient Temperature Range, T_{opr} . . . . . –20° to +75°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

Electrical Characteristics: (T_A = +25°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)