

M51714P

DUAL BI-DIRECTIONAL DRIVER

DESCRIPTION

The M51714P is designed for use in various motor equipments, such as audio, video and OA devices.

The M51714P is able to drive two motors forward or backward in bridge configurations. The circuit is mounted in a 16-pin DIL package which helps to minimize the space for a motor control unit and is easy to assemble one.

FEATURES

- 0.4A output current capability per driver
- 1.2A peak output current per driver
- Many choice of operating mode
- 2-Enable facility
- Threshold voltage is set at 2.0V (typ.)(Inputs & Enables).

APPLICATION

VTR, tape recorders and typewriters

RECOMMENDED OPERATING CONDITIONS

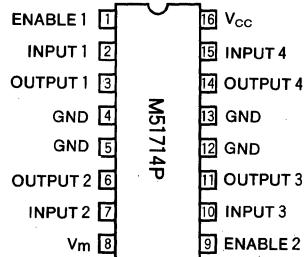
Supply voltage range	V_M	$V_{CC} \sim 24V$
	$V_{CC} 4V \sim V_M$	
Rated supply voltage	V_M	12V
	V_{CC}	5V

TRUTH TABLE

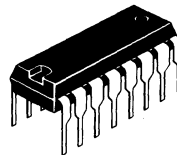
Input	Enable*1	Output
Hi	Lo	Hi
Lo	Lo	Lo
Hi	Hi	OFF*2
Lo	Hi	OFF*2

- *1) Relative to the considered deviation, as below.
 Enable 1 (EN 1) Output 1 and Output 2
 Enable 2 (EN 2) Output 3 and Output 4
 *2) High Impedance

PIN CONFIGURATION (TOP VIEW)

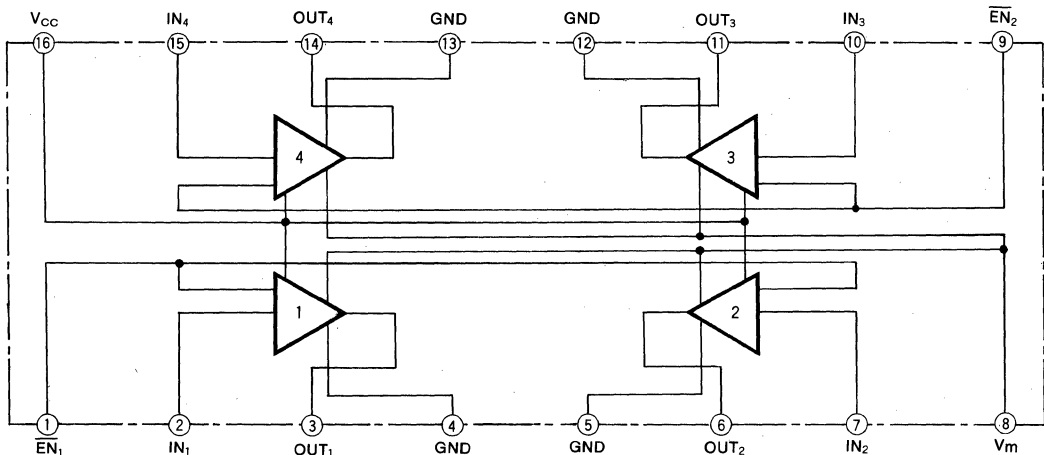


Outline 16P4



16-pin molded plastic DIL

BLOCK DIAGRAM



DUAL BI-DIRECTIONAL DRIVER

ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$, unless otherwise noted)

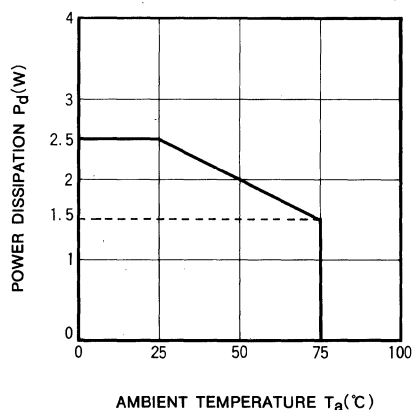
Symbol	Parameter	Conditions	Limits	Unit
V_m	Output power supply voltage		$V_{CC}\sim 26$	V
V_{CC}	Supply voltage		V_m	V
V_i	Input voltage		$-0.3\sim +7$	V
V_e	Enable input voltage		$-0.3\sim +7$	V
$I_{O(MAX)}$	Maximum output current		1.2	A
I_o	Rated output current		0.4	A
P_d	Power dissipation		2.5	W
T_j	Junction temperature		150	$^{\circ}\text{C}$
T_{opr}	Operating temperature range		$-20\sim +75$	$^{\circ}\text{C}$
T_{stg}	Storage temperature range		$-40\sim +125$	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$, unless otherwise noted)

Symbol	parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I_{CC}	Quiescent supply current			10	20	mA
I_m	Quiescent output supply current			25	50	mA
$V_{th(i)}$	Input threshold voltage		1.6	2.2	2.7	V
$V_{th(e)}$	Enable input threshold voltage		1.6	2.2	2.7	V
$I_{in(i)}$	Input current			3.5	20	μA
$I_{in(e)}$	Enable input current			0.5	10	μA
$V_{sat(U)}$	Source saturation voltage	$I_o=0.2\text{A}$		1.0	1.6	V
		$I_o=0.4\text{A}$		1.3	1.9	V
$V_{sat(D)}$	Sink saturation voltage	$I_o=0.2\text{A}$		0.9	1.5	V
		$I_o=0.4\text{A}$		1.0	1.6	V

TYPICAL CHARACTERISTICS

**THERMAL DERATING
(MAXIMUM RATING)**



APPLICATION EXAMPLE

