

Single-Phase DC Brushless Motor Driver IC

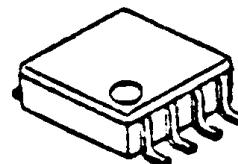
■ GENERAL DESCRIPTION

The NJU7325 is dual power amplifiers.

It features MOS-FET output for better saturation characteristics.

It is suitable for small fan-motor applications.

■ PACKAGE OUTLINE

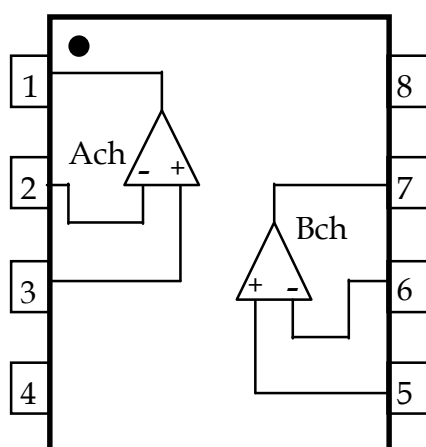


NJU7325R/RB1

■ FEATURES

- Single Supply
- Operating Voltage $V_{DD}=2.4$ to $5.5V$
- Low Operating Current
- Low Saturation Output Voltage $V_{sat}=\pm 0.35V$ @ $I_o=\pm 250mA$
- C-MOS Technology
- Package VSP8, TVSP8

■ BLOCK DIAGRAM



- 1 : A OUTPUT
- 2 : A- INPUT
- 3 : A+ INPUT
- 4 : V_{SS}
- 5 : B+ INPUT
- 6 : B- INPUT
- 7 : B OUTPUT
- 8 : V_{DD}

■ ABSOLUTE MAXIMUM RATINGS

($T_a=25^{\circ}C$)

PARAMETER	RATINGS	SYMBOL (unit)	NOTE
Supply Voltage	+7.0	V_{DD} (V)	
Input Voltage	-0.3 to $V_{DD}+0.3$	V_{id} (V)	
Operating Temperature Range	-40 to +85	T_{opr} ($^{\circ}C$)	
Storage Temperature Range	-50 to +150	T_{stg} ($^{\circ}C$)	
Power Dissipation	400	P_D (mW)	VSP8/TVSP8 (Single)

RECOMMENDED OPERATING CONDITION

$$V_{DD} = 2.4V \sim 5.5V$$

ELECTRICAL CHARACTERISTICS

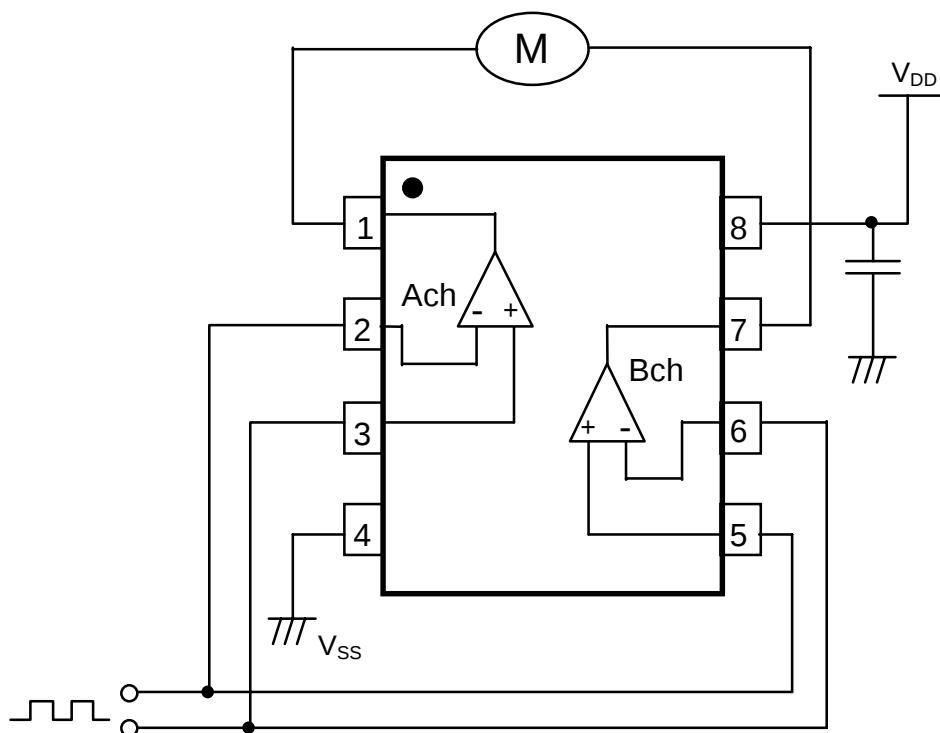
(Ta=25°C, V_{DD}=5V)

PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX	UNIT
Operating Current	I _{DD}	No Load Condition : Voltage Follower Vo=2.5V : 1 circuit	-	3.0	4.0	mA
Input Offset Voltage	V _{IO}	-	-15	-	+15	mV
Input Offset Current	I _{IO}	-	-	10	-	pA
Input Bias Current	I _{IB}	-	-	10	-	pA
Input Impedance	R _{IN}	-	-	10 ¹²	-	Ω
Input Common Mode Voltage Range	V _{ICM}	-	0.4~4.0	-	-	V
Maximum Output Voltage Range	V _{OM}	I _O =+250mA	4.55	4.65	-	V
		I _O =-250mA	-	0.35	0.45	
Large-Signal Voltage gain	A _V	-	55	-	-	dB
Common Mode Rejection ration	CMRR	V _{ICM} =0.4 to 4.0V	53	-	-	dB
Supply Voltage Rejection ration	PSRR	V _{DD} =4.5 to 5.5V	55	-	-	dB
Unity Gain Bandwidth	F _T	C _L =10pF ; Open Loop	-	1.5	-	MHz
Slew Rate	SR	Voltage Follower , R _L =16.5Ω	-	1	-	V/μs

Note1) Oscillation margin of NJU7325 will be narrow if the application features light load-current and low-gain (i.e. voltage follower). Maintain the value of stray capacitance at the output terminal with less than 100pF to prevent the oscillation.

Note2) Place decoupling-capacitor near V_{SS} and V_{DD} pins.

■ Application Circuit



Note) Place decoupling-capacitor near V_{SS} and V_{DD} pins.

[CAUTION]
The specifications on this databook are only given for information, without any guarantee as regards either mistakes or omissions. The application circuits in this databook are described only to show representative usages of the product and not intended for the guarantee or permission of any right including the industrial rights.