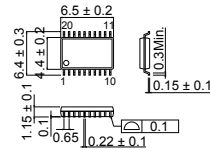


## 2-Channel H-Bridge Motor Driver BD6735FV

### Summary

BD6735FV is a DMOS-driven 2-channel H-bridge motor driver. The driver is capable of driving both DC motors and stepping motors, and can be switched between forward, reverse, brake and shutdown (idle) modes according to the input logic.

### External Dimensions Diagram (units: mm)



### SSOP-B20

### Features

- 1) □ Two built-in H-bridge type driver circuits
- 2) □ Low ON-resistance DMOS driving
- 3) □ Accommodates a power supply up to 3.3V
- 4) □ Built-in DMOS gate step-up circuit
- 5) □ Logic switching is possible for DC and stepping motors (PWM controllable)
- 6) □ Equipped with power-saving functionality
- 7) □ Built-in thermal shutdown circuit
- 8) □ Equipped with low voltage detection circuit

### Applications

Camera lens drivers for DSCs, DVCs, etc.  
Audio peripheral equipment  
OA peripheral equipment

### Absolute Maximum Ratings ( $\bar{T}_a=25^\circ\text{C}$ )

Parameter	Symbol	Limits	Unit
Power supply voltage $V_{cc}$	$V_{cc}$	10	V
Power supply voltage $V_M$	$V_M$	10	V
Acceptable loss	$P_d$	810	mW
Operating temperature range	$T_{opr}$	-30 to +85	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\* When  $T_a = 25^\circ\text{C}$  or greater, the power decreases by 6.48 mW per  $1^\circ\text{C}$ .

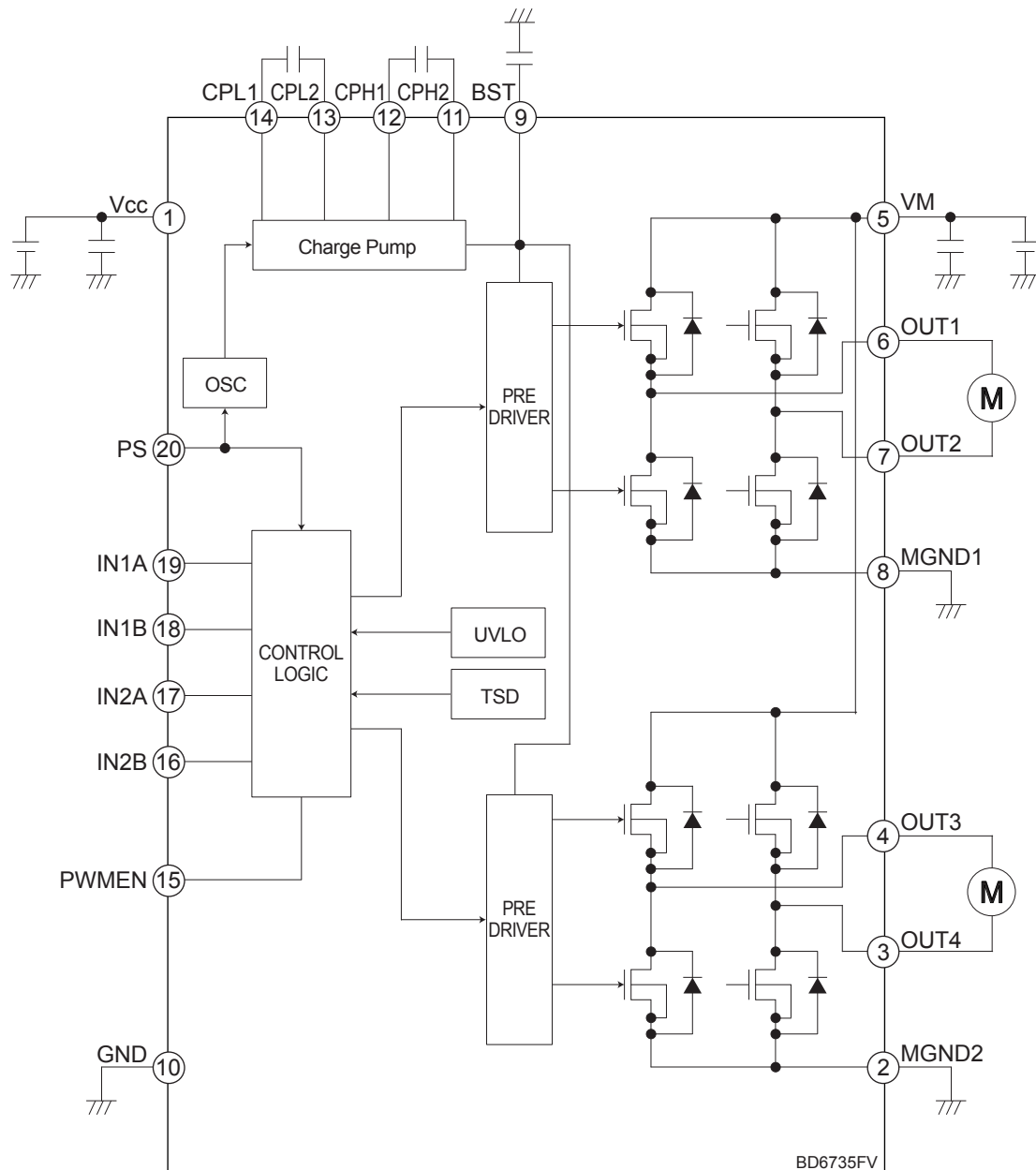
### Recommended Operating Conditions ( $\bar{T}_a=25^{\circ}\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage $V_{CC}$	$V_{CC}$	2	5	8	V
Power supply voltage $V_M$	$V_M$	2	5	8	V

Electrical characteristics (unless specified otherwise,  $T_a = 25^{\circ}\text{C}$ ,  $V_{CC} = 5\text{ V}$ , and  $V_M = 5\text{ V}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Circuit current at standby	$I_{CCST}$	–	0	1	$\mu\text{A}$	$PS=0\text{V}$
Circuit current operation	$I_{CC}$	0.5	2	4	$\text{mA}$	$PS = \text{Hi}$ , control input = 100 kHz
Output ON resistance	$R_{ON}$	–	1.0	1.35	$\frac{1}{2}$	$I_o=\pm 700\text{mA}$ , sum of high and low
PS terminal H level input voltage	$V_{PSH}$	2.0	–	$V_{CC}$	V	
PS terminal L level input voltage	$V_{PSL}$	-0.3	–	0.5	V	
Control input terminal H level input voltage	$V_{INH}$	2.0	–	$V_{CC}$	V	
Control input terminal L level input voltage	$V_{INL}$	-0.3	–	0.7	V	
Control input terminal hysteresis width	$V_{INHYS}$	50	100	200	mV	

### Application Circuit Example



BD6735FV

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