

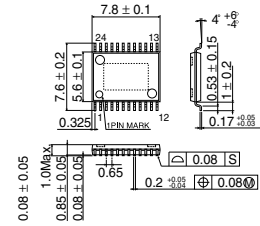
Stepping Motor Driver

BD6775EFV

● Description

BD6775EFV is a general-purpose stepping motor driver for OA Equipment. This driver is a bipolar type, available for 2 phase, 1-2 phase, and W1-2 phase motors.

● Dimension (Unit : mm)



HTSSOP-B24

● Features

- 1) MOS FET output(External diode is not necessary.)
- 2) Output OFF time is determined by external C, R value
- 3) High efficiency due to synchronous rectifier drive
- 4) Small and High power package(Exposed PAD)

● Applications

OA Equipment(Printer, Scanner etc...)

● Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage V_{CC}	V_{CC}	7	V
Supply voltage V_M	V_M	40	V
Input voltage	V_{IN}	V_{CC}	V
Power dissipation	P_d	1.1 ¹	W
Operating temperature range	T_{opr}	-20 to +75	°C
Storage temperature range	T_{stg}	-55 to +150 ²	°C
Junction temperature	T_j	+150	°C
Maximum output current	I_{out}	800	mA

¹ Debating in done at 8.8mW/°C for operating above Ta=25°C. 70mmX70mmX1.6mm glass epoxy board.

² Do not, however exceed P_d , ASO and $T_j=150^{\circ}C$.

● Recommended Operating Conditions (Ta=25°C)

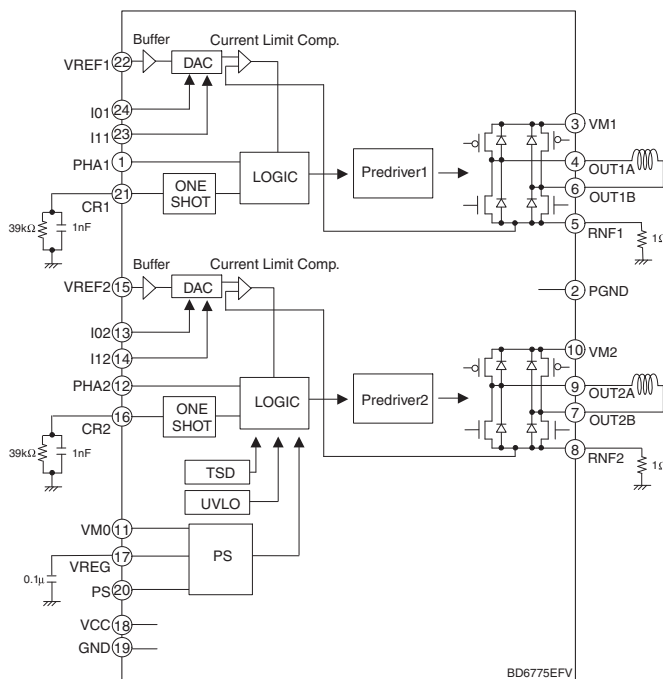
Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply voltage V _{CC}	V _{CC}	4.5	—	6.0	V
Supply voltage V _M	V _M	10	—	37	V

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● Electrical characteristics (Ta=25°C, V_{CC}=5V, V_M=35V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Circuit current at standby	I _{CCST}	250	360	400	μA	PS=0V
Circuit current	I _{CC}	4.4	5.8	7.2	mA	PS=H
V _M current at standby	I _{VMST}	—	0	10	μA	PS=0V
V _M Circuit current	I _{VM}	2	3	4	mA	PS=H
[Control input]						
H level input voltage	V _{INH}	2.0	—	—	V	PHA1, PHA2, I01, I11, I02, I12
L level input voltage	V _{INL}	—	—	0.8	V	PHA1, PHA2, I01, I11, I02, I12
[Output]						
Output ON Resistance	R _{ON}	—	3	3.6	Ω	I _o =±300mA, Sum of on-resistance of upside and bottom side
Output leak current	I _{LEAK}	—	0	10	μA	
[Current Control Part]						
RNFX input current	I _{RNF}	-2	-0.6	—	μA	RNF=0V
VREFX input current	I _{VREF}	-1	-0.1	—	μA	
VREFX input voltage	V _{REF}	0	—	2.0	V	
Comparator threshold (100%)	C _{THLL}	0.34	0.4	0.46	V	V _{REF} =2V, I _o =L, I ₁ =L
Comparator threshold (67%)	C _{THHL}	0.227	0.267	0.307	V	V _{REF} =2V, I _o =H, I ₁ =L
Comparator threshold (33%)	C _{THLH}	0.133	0.133	0.153	V	V _{REF} =2V, I _o =L, I ₁ =H
Minimum ON time	T _{MINON}	0.3	0.5	1.0	μS	R=39kΩ, C=1nF

● Application Circuit



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