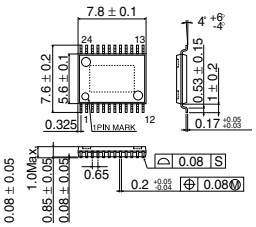
Stepping Motor Driver
BD6775EFV

● 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	Pd	1.1 [1]	W
Operating temperature range	Topr	−20 to +75	°C
Storage temperature range	Tstg	−55 to +150 [2]	°C
Junction temperature	Tj	+150	°C
Maximum output current	Iout	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 Pd, ASO and Tj=150°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

This product described in this specification isn't judged whether it applies to COCOM regulations.
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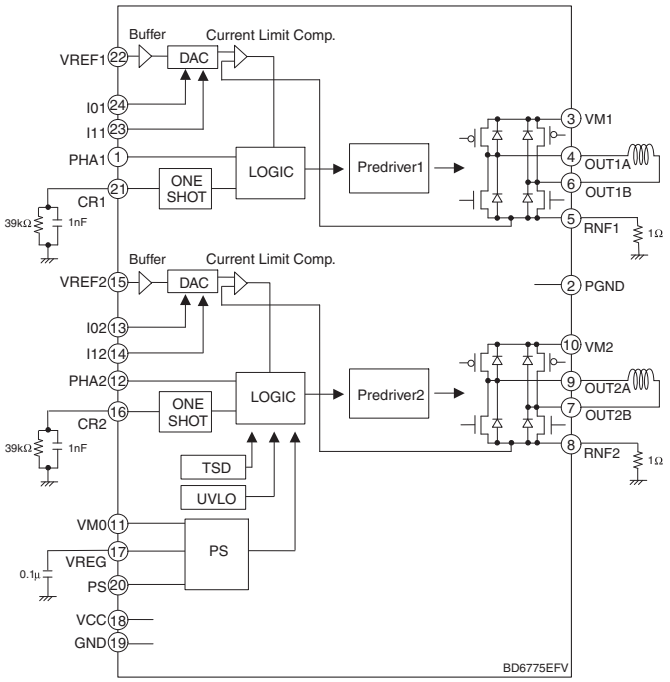
● Electrical characteristics (Ta=25°C, Vcc=5V, V_M=35V)

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	IVMST	–	0	10	μA	PS=0V
V_M Circuit current	IVM	2	3	4	mA	PS=H
[Control input]						
H level input voltage	VINH	2.0	–	–	V	PHA1, PHA2, I01, I11, I02, I12
L level input voltage	VINL	–	–	0.8	V	PHA1, PHA2, I01, I11, I02, I12
[Output]						
Output ON Resistance	R_{ON}	–	3	3.6	Ω	Io=±300mA, Sum of on-resistance of upside and bottom side
Output leak current	ILEAK	–	0	10	μA	
[Current Control Part]						
RNFX input current	IRNF	−2	−0.6	–	μA	RNF=0V
VREFX input current	IVREF	−1	−0.1	–	μA	
VREFX input voltage	VREF	0	–	2.0	V	
Comparator threshold (100%)	CTHLL	0.34	0.4	0.46	V	VREF=2V, Io=L, I1=L
Comparator threshold (67%)	CTHHL	0.227	0.267	0.307	V	VREF=2V, Io=H, I1=L
Comparator threshold (33%)	CTHLH	0.133	0.133	0.153	V	VREF=2V, Io=L, I1=H
Minimum ON time	TMINON	0.3	0.5	1.0	μS	R=39kΩ, C=1nF

● Application Circuit



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