

Reversible Motor Drivers for Brush Motors

1.0A Reversible Motor Drivers (Single Motor)



BA6956AN,BA6287F,BA6285FS,BA6285AFP-Y,BA6920FP-Y

No.11008EBT02

●Description

The reversible motor driver for output 1.0A for 1 motor can set the output modes to four modes, normal, reverse, stop (idling), and braking in accordance with logic input (2 inputs).

●Features

- 1) Built-in surge absorption diode
- 2) By built-in power save circuit, current consumption when a motor stops (idles) can be suppressed
- 3) Output voltage can be optionally set by reference voltage setting pin
- 4) Built-in thermal shutdown circuit (TSD)

●Applications

Audio-visual equipment; PC peripherals; Car audios; Car navigation systems; OA equipments

●Absolute maximum ratings (Ta=25°C, All voltages are with respect to ground)

Parameter	Symbol	Ratings					Unit
		BA6956AN	BA6287F	BA6285FS	BA6285AFP-Y	BA6920FP-Y	
Supply voltage	VCC	18	18	18	30	36	V
Supply voltage	VM	18	18	18	30	36	V
Output current	I _{OMAX}	1* ¹	1* ¹	1* ¹	1* ¹	1* ¹	A
Operating temperature	T _{OPR}	-20 ~ 75	-20 ~ 75	-20 ~ 75	-40 ~ 85	-30 ~ 85	°C
Storage temperature	T _{STG}	-55 ~ 150	-55 ~ 150	-55 ~ 150	-55 ~ 150	-55 ~ 150	°C
Power dissipation	Pd	1.19* ²	0.689* ³	0.813* ⁴	1.45* ⁵	1.45* ⁵	W
Junction temperature	T _{jmax}	150	150	150	150	150	°C

*1 Do not, exceed Pd or ASO.

*2 SIP9 package. Derated at 9.5mW/°C above 25°C.

*3 SOP8 package. Mounted on a 70mm x 70mm x 1.6mm FR4 glass-epoxy board with less than 3% copper foil. Derated at 5.52mW/°C above 25°C.

*4 SSOP-A16 package. Mounted on a 70mm x 70mm x 1.6mm FR4 glass-epoxy board with less than 3% copper foil. Derated at 6.5mW/°C above 25°C.

*5 HSOP25 package. Mounted on a 70mm x 70mm x 1.6mm FR4 glass-epoxy board with less than 3% copper foil. Derated at 11.6mW/°C above 25°C.

●Operating conditions (Ta=25°C)

Parameter	Symbol	Ratings					Unit
		BA6956AN	BA6287F	BA6285FS	BA6285AFP-Y	BA6920FP-Y	
Supply voltage	VCC	6.5 ~ 15	4.5 ~ 15	4.5 ~ 15	4.5 ~ 24	6.5 ~ 34	V
Supply voltage	VM	6.5 ~ 15	4.5 ~ 15	4.5 ~ 15	4.5 ~ 24	6.5 ~ 34	V
VREF voltage	VREF	< VCC, VM	< VCC, VM	< VCC, VM	< VCC, VM	< VCC, VM	V

●Block diagram and pin configuration

BA6287F

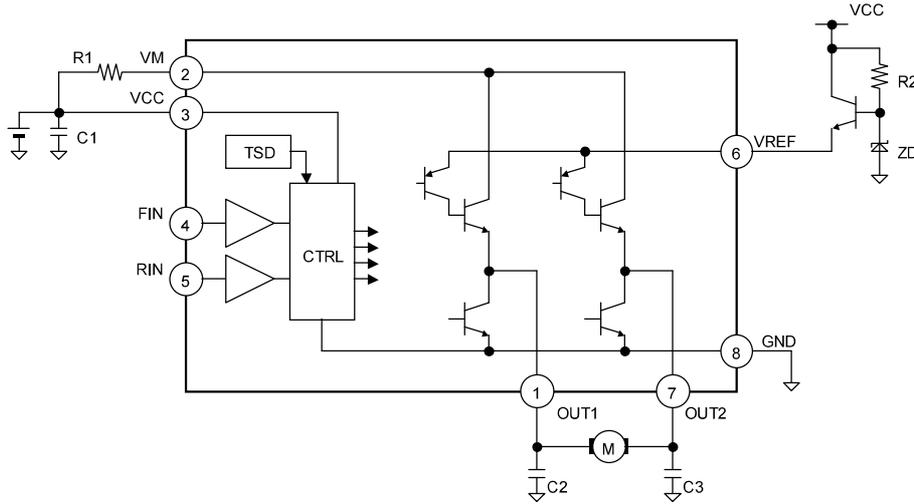


Fig.27 BA6287F

Table 2 BA6287F

Pin	Name	Function
1	OUT1	Driver output
2	VM	Power supply (driver stage)
3	VCC	Power supply (small signal)
4	FIN	Control input (forward)
5	RIN	Control input (reverse)
6	VREF	Reference voltage setting pin
7	OUT2	Driver output
8	GND	GND

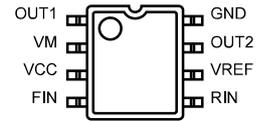


Fig.28 BA6287F (SOP8)