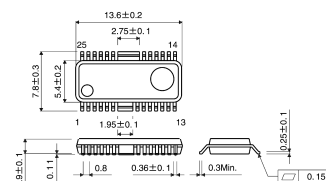


Reversible Motor Driver BA6920FP-Y

Description

The BA6920FP-Y is an IC for small DC motor drive which has a wide operating voltage range. It has four output modes such as forward, reverse, stop and brake. When the motor is stopped, all circuits turn off automatically. A power save circuit that reduces current consumption and a power save terminal is included. This IC has 34V maximum operating voltage, so that it is useful for wide varieties of applications.

Dimension(Units:mm)



Features

HSOP25

- 1) Wide operating voltage range : 6.5~34V
- 2) Can be operated directly by TTL and CMOS
- 3) Low power consumption while the motor is stopping due to built-in power save circuit
- 4) Output high voltage can be set externally by VREF pin.
- 5) Built-in surge absorbing diode
- 6) Built-in TSD (Thermal shut down) circuit
- 7) A signal ground and a power ground are provided separately, so that reversible/variable speed control is available by adding an electronic governor.

Applications

VCR, Audio system applications, Office automation equipment, Industrial applications

Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	36	V
Power dissipation	P _d	1450 ^{*1}	mW
Operating temperature range	T _{opr}	-30 ~ +85	deg
Storage temperature range	T _{stg}	-55 ~ +150	°C
Output current	I _{OUT}	1000 ^{*2}	mA

*1 Derating : 11.6mW/°C for operation above Ta=25°C
(Mounted on a 70.0mm*70.0mm*1.6mm glass epoxy PCB.)

*2 Do not exceed PD and ASO.

Recommended Operating Conditions (Ta=25°C)

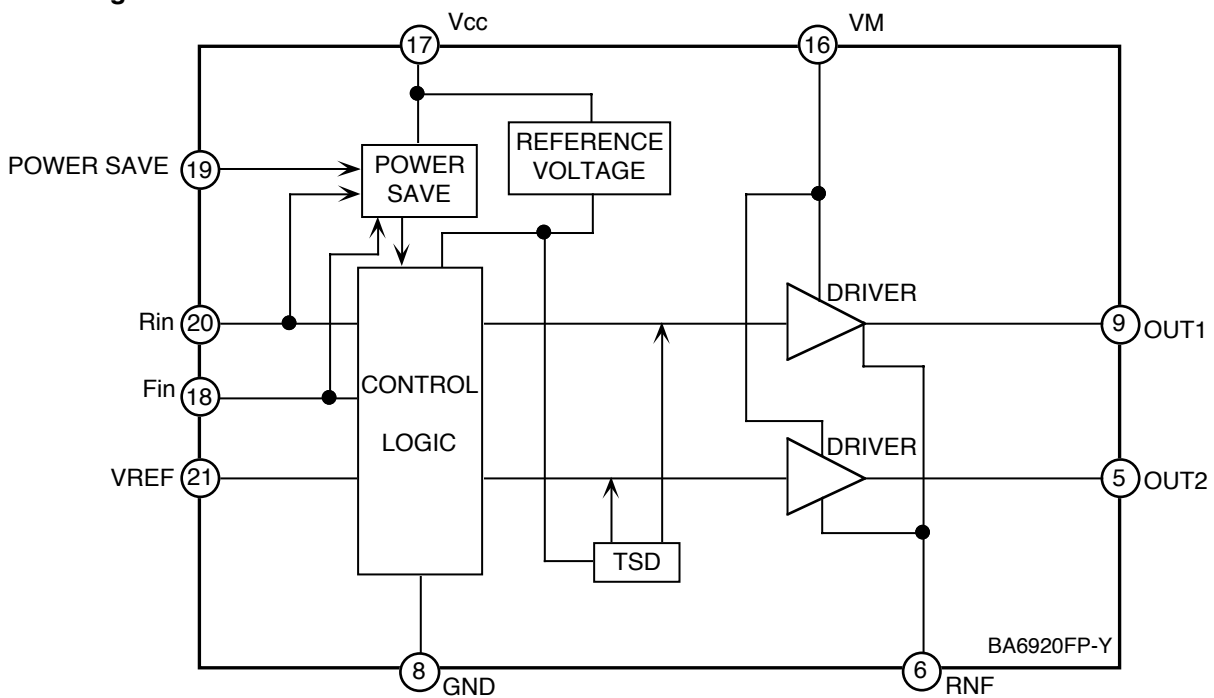
Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating voltage range	V _{CC}	6.5	-	34	V
	V _M	6.5	-	34	V

Electrical characteristics (Unless otherwise noted, Ta=25°C, Vcc=12V, VM=12V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Circuit current 1	I _{cc1}	5	8	12	mA	Forward or reverse mode
Circuit current 2	I _{cc2}	3	5	8	mA	Brake mode
Standby circuit current	I _{ST}	-	-	15	μA	Standby mode
Input voltage "H" level	V _{IH}	3.0	-	-	V	
Input voltage "L" level	V _{IL}	-	-	0.8	V	
"H" level input current	I _{IH}	100	200	300	μA	V _{IN} =3.0V
Output saturation voltage	V _{CE}	-	2.2	3.3	V	I _o =200mA (Sum of C-E voltage on upper and lower output Tr)
Power save OFF voltage	VPS OFF	-	-	0.8	V	Operate mode
Power save ON voltage	VPS ON	2.0	-	-	V	Standby mode
REF bias current	I _{REF}	-	12	35	μA	V _{REF} =6V, I _o =100mA

*This product is not designed for protection against radioactive rays.

Block diagram



1~4.7.10~15.22~25 : N.C.
 *Radiation fin must connect with GND.