

**Description**

RZ7886 is a monolithic IC designed for driving bi-directional DC motor. It has two pins of logic inputs for controlling the direction, forward and backward. The circuit feature good anti-interference performance, small standby current and low output saturation pressure drop. It has a built-in clamp diode to reverse the impact of the release of inductive load current, making it in the drive relays, DC motors, stepper motors or control the use of switching power safe and reliable. RZ7886 is suitable for toy vehicles, remote-controlled aircraft motor drive, automatic valve motor, electromagnetic lock drive, precision instruments and other circuits.

Features

- Low stand-by current: $\leq 2\mu\text{A}$
- Wide supply voltage range 3.0V~14V
- Built-in Brake Function
- Thermal Shutdown protection
- Over Current Limit and Short Circuit Protect Function
- DIP8 Pb-Free package.

Pin Function

Pin NO	Name	Function
1	BI	Backward input
2	FI	Forward input
3	GND	Ground
4	Vcc	Vcc
5, 6	FO	Forward output
7, 8	BO	Backward output

Input Truth Table

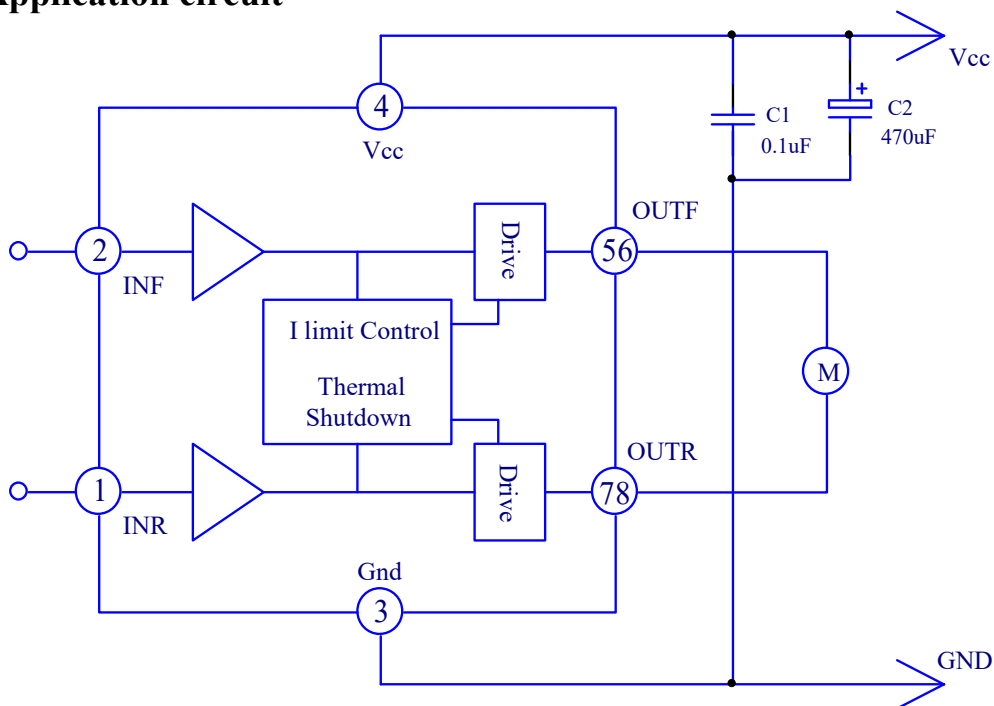
2pin Finput	1pin Binput	5,6pin Foutput	7,8pin Boutput
H	L	H	L
L	H	L	H
H	H	L	L
L	L	Open	Open

Absolute Maximum Rating

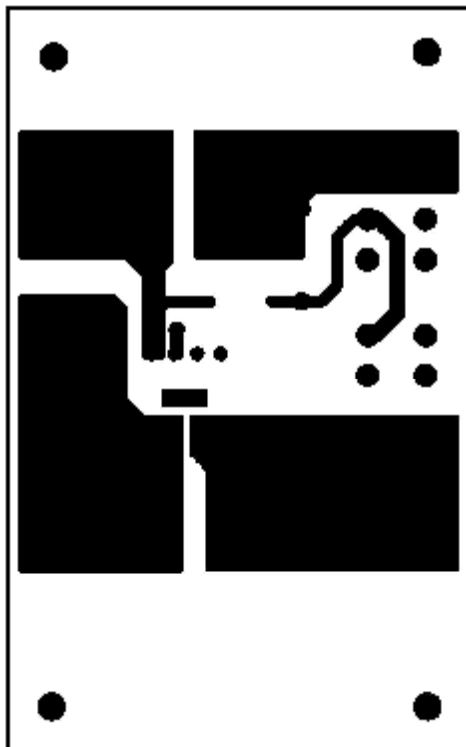
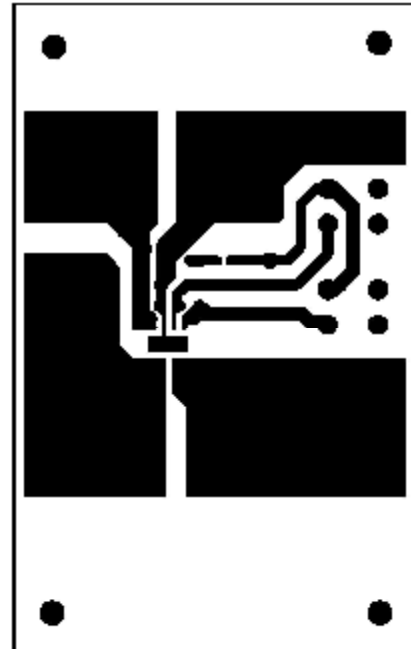
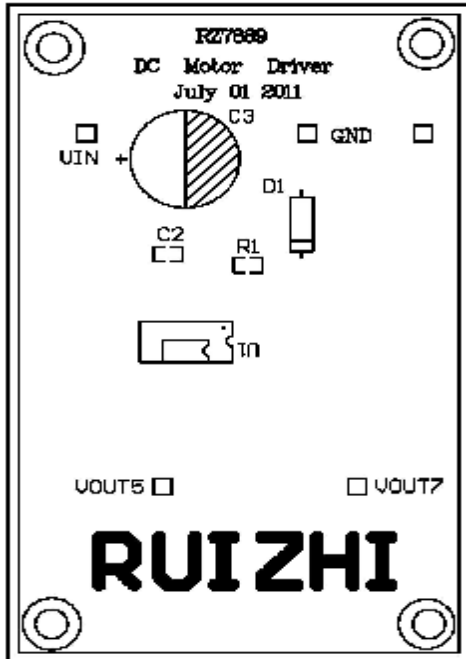
Parameter	Symbol	Rating	Unit
Maximum supply voltage	Vcc	15	V
Output current	Iout	13	A
Operating Temperature	Top	-25~+85	°C
Storage temperature	Tstg	-55~+150	°C

Electrical Characteristics ($V_{cc}=6V, T_a=25^{\circ}C$, unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Operating Voltage	V_{OPR}		3.0	--	14	V
Stand-by Current	I_s	$V_{cc} = 9V \quad V_i = 0$			2	μA
No-load Operating Current	I_{cc}	$V_{cc} = 6V \quad V_i = 3V$ Open load	2	4	7	mA
High Output Voltage	V_{HOUT}	$V_{cc} = 6V \quad I_o = 5A$	5.5	5.7	5.9	V
Low Output Voltage	V_{LOUT}	$V_{cc} = 6V \quad I_o = 5A$	0.05	0.12	0.3	V
High Input Voltage	V_{IH}		2.5	3.5	6	V
Low Input Voltage	V_{iL}			0.5	0.7	V
Input Current (2V)	I_i	$V_{cc} = 6V \quad V_i = 2V$		70	100	μA
Input Current (3V)	I_i	$V_{cc} = 6V \quad V_i = 3V$		100	150	μA
Continuous Output current	I_{out}	Around of the no.5,6,7,8 pins needs copper to auxiliary heat dissipation		7	13	A
Thermal shutdown temperature	T_{otp}			130		$^{\circ}C$

Application circuit


Test PCB Board



Package Type DIP8

