Description

RZ7889 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. It has a 3A current drive capability, and a low output saturation pressure drop and quiescent current; 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. RZ7889 motor drive for toy vehicles, remote-controlled aircraft motor drive, automatic valve motor, electromagnetic lock drive, precision instruments and other circuits.

Features

- Low stand-by current. ≦2uA
- Wide supply voltage range：3.0V~15.0V..
- Built-in Brake Function
- Thermal Shutdown protection
- Short Circuit Protect Function
- Over Current Limit Function
- SOP8 Pb-Free package.

Pin Function

Pin NO	Name	Function
1	Bi	Backward input
2	Fi	Power supply
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

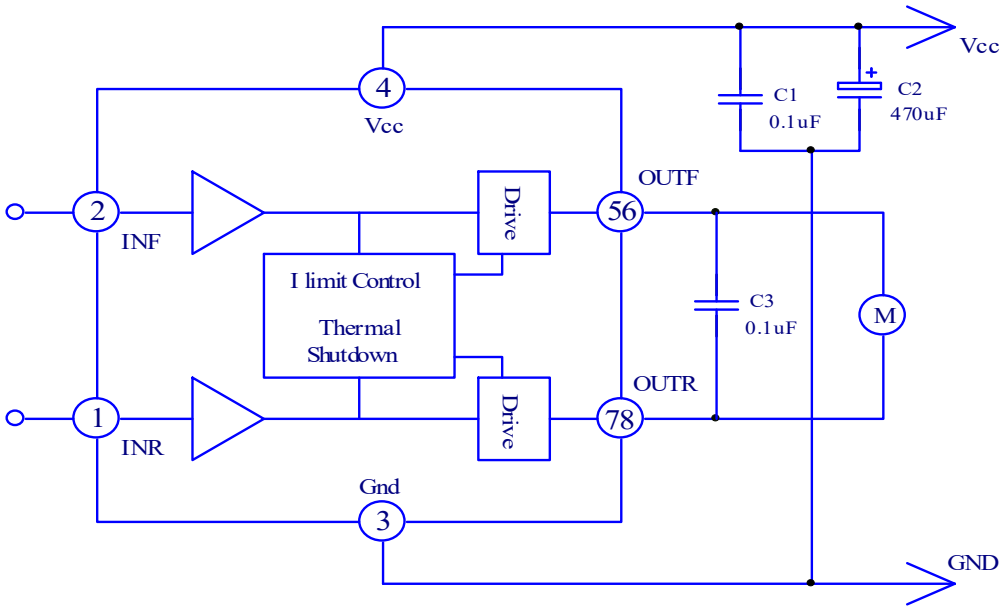
Absolute Maximum Rating

Parameter	Symbol	Rating	Unit
Maximum supply voltage	Vcc(max)	18	V
Peak output current	Iout(peak)	5	A
Operating Temperature	Top	-25~+85	℃
Storage temperature	Tstg	-55~+150	℃

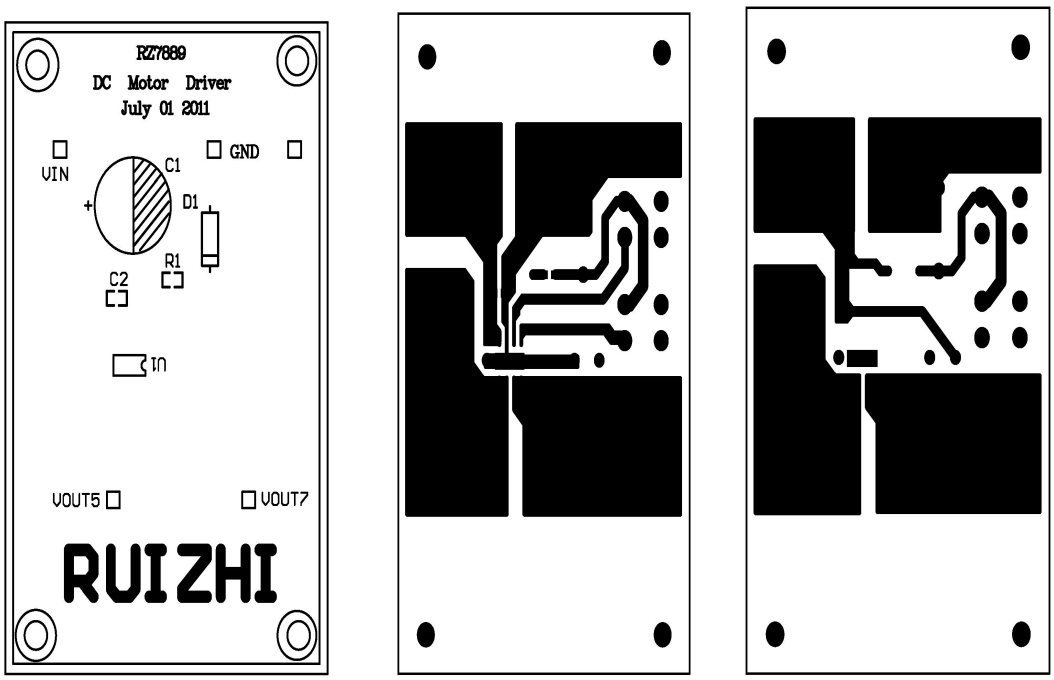
Electrical Characteristics(Vcc=6V,Ta=25℃,unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Operating oltage	V_{OPR}		3.0	--	15	V
stand-by current	Is	Vcc = 9V Vi = 0			2	uA
No-load oprating current	Icc	Vcc = 6V V1 = 3V	2	4	7	mA
High Output Voltage	VH_{OUT}	Vcc = 6V Io =3A	5.5	5.7	5.9	V
Low Output Voltage	VL_{OUT}	Vcc = 6V Io = 3A	0.05	0.12	0.3	V
High input Voltage	ViH		2.2	3.5	6	V
Low input Voltage	ViL			0.5	0.7	V
Input current	Ii	Vcc = 6V Vi = 3V		100	150	uA
Continuous output current	Iout	Around of the no.5, no.6, & no.7,no.8 pins needs copper to auxiliary heat dissipation		3	4.2	A
Thermal shutdown temperature	Totp			130		℃

Application circuit



Test PCB Board



Package Type SOP8