

PT3935

Single Coil Fan Driver with RD Output



Package: T092-5pin

X=2.10mm Sensor location
 Y=0.85mm
 Z=0.43mm
 Marking side
 Part Number: 395
 Date Code xx(Year)xx(week)

SYMBOL	DIMENSIONS IN MILLIMETER(mm)		
	MIN	NOM	MAX
A	5.12	5.22	5.32
B	3.55	3.65	3.75
C	0.35	0.38	0.41
D	13.30	14.30	15.30
E	0.90	0.95	1.00
F	1.45	1.55	1.65
G	0.65	0.75	0.85
H	0.35	0.38	0.41
SENSOR LOCATION			
X	1.95	2.10	2.25
Y	0.70	0.85	1.00
Z	0.37	0.43	0.49

- VDD/DC power supply
- O1/First output pin
- O2/Second output pin
- RD output
- GND/DC ground

The PT3935 is designed for magnetic actuating using a bipolar magnetic field. The built-in dynamic offset cancellation of pre-amplifier stage achieves optimal symmetrical magnetic sensing. The output driver provides a linear drive to eliminate switching noise. This motor driver IC is especially designed for OA cooling fan solution or industry equipments such as inverters or fan trays. PT3935 also provides RD signal for revolution detection. The supply voltage range is from 4.5V to 30V.

Specifications

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Conditions	Rating	Units
Maximum supply voltage	VDDmax		34.5	V
Allowable power dissipation	Pd		568 ^{*1}	mW
Operating temperature	Ta		-40~+85	°C
Storage temperature	Ts		-50~+150	°C
Max. output current	Iomax	0.5sec	800 ^{*2}	mA
Thermal resistance	Raj		220	°C/W
Junction temperature	Tj		150	°C

*1: Reduced by 4.5mW for each increase in Ta of 1°C over 25°C When mounted on 50mm x 50mm x 1.6mm glass epoxy board

*2: Should not exceed Pd

Key Features

- 4.5V~30V supply voltage
- Single phase full wave
- Soft switching output
- Built-in Hall sensor
- Motor locked protection & automatic restart
- ESD protection: 8KV
- RD output
- Support pre-driver application
- Built-in hysteresis comparator
- Built-in Zener diode
- High sensitivity & low thermal drift magnetic sensing
- Low power consumption & high driving efficiency

Applications

- Brushless DC motor
- Cooling fan for OA equipments
- Cooling fan for industry equipments, e.g. inverter.