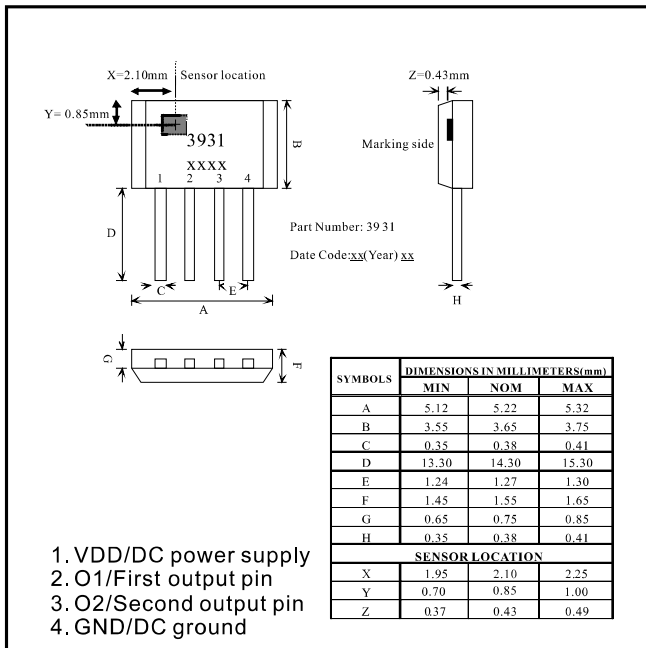


### Package: T092-4pin



## 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
- 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.

The PT3931 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. 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 <sup>*1</sup> | mW    |
| Operating temperature       | Ta     |            | -40~+85           | °C    |
| Storage temperature         | Ts     |            | -50~+150          | °C    |
| Max. output current         | Iomax  | 0.5sec     | 800 <sup>*2</sup> | 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