



PT-3016x Frequency Output Divide 1/1.5/2

Overview

The PT3016x is a universal DC brushless motor driver IC. PT3016x is design for varies motor applications. PT3016x driver IC can use for signal coil DC and traditional double coil DC brushless motor. This driver IC accepts the hall IC input and drives the motor coil directly without any other describe transistor. Driver IC can drive the DC brushless motor to start operation at the lowest voltage of 1.5V, but this IC can operate for a wide voltage range from 2.0V up to 6.5V. PT3016x driver IC can support large current up to 400mA

Applications

- Single coils DC brushless motor.
- Traditional double coil DC Brushless motor
- DC 1.5V~6.5V.
- **PT-3016A(Divide 1) / Four Pole fan**
- **PT-3016B(Divide 1.5) / Six Pole fan**
- **PT-3016C(Divide 2) / Eight Pole fan**

Features

- Motor lock protection
- Built-in protection circuit for transient output
- Frequency Generation output
- Low power dissipation and high driving efficiency
- Ultra-low start voltage

Input Devices

- Hall IC

Specifications

Absolute Maximum Ratings (Ta = 25°C)

| Parameter | Symbol | Conditions | Ratings | Units |
|-----------------------------|--------------------------------|------------|------------|-------|
| Maximum supply voltage | V _{DD} ^{max} | | 6.5 | V |
| Allowable power dissipation | P _d | | 350* | mW |
| Operating temperature | T _a | | -30 ~ +125 | °C |
| Storage temperature | T _s | | -55 ~ +150 | °C |
| Output Continuous current | I _{out} | Max. | 400 | mA |
| Output Peak current | I _{out} | T ≤ 20us | 650 | mA |

* On 50mm x 50mm x 1.6mm glass epoxy board

Package: SOT-26

Pin Description

| Name | Pin | Description | Type |
|------|-----|---|------|
| Vdd | 5 | DC power supply | P |
| Gnd | 2 | DC ground | G |
| O1 | 3 | First output pin | O |
| O2 | 1 | Second output pin | O |
| Hin | 4 | Hall IC signal input | I |
| FG | 6 | Tacho meter output (Frequency Generation) | O |

Type Description
P: Power, G:Ground, O: Output, I:Input

SYMBOLS

| SYMBOLS | DIMENSIONS IN MILLIMETERS | | |
|---------|---------------------------|------|------|
| | MIN | NOM | MAX |
| A2 | 0.70 | 0.80 | 0.90 |
| A1 | 0.00 | - | 0.10 |
| A | 1.00 | 1.10 | 1.30 |
| b | 0.35 | 0.40 | 0.50 |
| C | 0.10 | 0.15 | 0.25 |
| D | 2.70 | 2.90 | 3.10 |
| E | 1.60 | 1.80 | 2.00 |
| HE | 2.60 | 2.8 | 3.00 |
| e | 1.7 | 1.9 | 2.1 |
| L | 0.20 | - | - |
| b1 | 0.45 | 0.50 | 0.55 |

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X### : PT-3016
X = A---divide 1
X = B---divide 1.5
X = C---divide 2
###---year, week code.