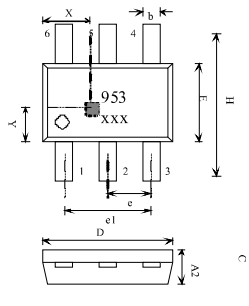
PT3953

Single Coil Fan Driver with PWM

Package: TSOT26F-6pins



SYMBOLS	DIMENSIONS IN MILLIMETERS(mm)		
	MIN	NOM	MAX
A2	0.70	0.75	0.775
b	0.35	-	0.50
C	0.10	-	0.20
D	2.80	2.90	3.00
E	1.50	1.60	1.70
H	3.60	3.80	4.00
e	-	0.95	-
e1	-	1.90	-
L	-	1.10	-
SENSOR LOCATION			
X	-	100	-
Y	-	080	-
Z	-	025	-

1. FG output
2. GND/DC ground
3. O1/First output pin
4. O2/Second output pin
5. PWM speed control input pin
6. VDD/DC power supply

The PT3953 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 Hall-effect IC is optimal for notebook cooling fan application with speed controllable by PWM input signal. The supply voltage range is from 1.8V to 8.5V and the output current is 400mA..

Specifications

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Conditions	Rating	Units
Maximum supply voltage	VDDmax		10	V
Allowable power dissipation	Pd		500*1	mW
Operating temperature	Ta		-40~+100	℃
Storage temperature	Ts		-50~+150	℃
Max. output current	Peak		1000	mA
	Hold	0.5sec	800*2	mA
Junction Temperature	Tj		170	℃
Thermal resistance	Raj		290	℃/W

*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

- 1.8V~8.5V supply voltage
- Single phase full wave
- Soft switching output
- Built-in Hall sensor
- Motor locked protection & automatic restart
- Speed controllable by PWM input signal
- ESD protection: 8KV
- FG 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

- Single coil 5V brushless DC fan with PWM function
- Cooling fan for notebook
- Cooling fan for portable device.