



Product Overview

LV8741V: PWM Current Control Stepper Motor Driver

For complete documentation, see the data sheet

Product Description

The LV8741V is a 2-channel H-bridge driver IC that can switch a stepper motor driver, which is capable of micro-step drive and supports Quarter-step excitation, and two channels of a brushed motor driver, which supports forward, reverse, brake, and standby of a motor. It is ideally suited for driving brushed DC motors and stepper motors used in office equipment and amusement applications.

Features

- On resistance (upper side : 0.5 ; lower side : 0.5 ; total of upper and lower : 1.0 ; Ta = 25°C, IO = 1.5A)
- Excitation mode can be set to Full-step, Half-step full torque, Half-step or Quarter-step
- Motor current selectable in four steps
- Output short-circuit protection circuit (selectable from latch-type or auto reset-type) incorporated
- Thermal shutdown circuit and power supply monitor circuit incorporated
- CLK-IN Input
- Single-channel PWM current control stepper motor driver (selectable with DC motor driver channel 2) incorporated.
- BiCDMOS process IC
- Excitation step proceeds only by step signal input
- IO max = 1.5A

Benefits

- High Efficiency
- Various Step Adjustment Available
- Low Consumption
- Safety Design
- Thermal protection, Low voltage detection
- Easy Control for Micro-step Drive

Applications

- Stepper/Brush DC Motors
- Computing & Peripherals
- Industrial

End Products

- Printers
- Flatbed Scanner
- Inkjet Printer
- Multi-Function Printer
- Document Scanner

Part Electrical Specifications

| Product | Compliance | Status | Type | V _M Min (V) | V _M Max (V) | V _{CC} Min (V) | V _{CC} Max (V) | I _O Max (A) | I _O Peak Max (A) | Step Reso lution | Cont rol Type | Feed back Meth od | Curr ent Sens e | Reg ulato r Outp ut | Fault Dete ction | Flyb ack Prot ectio n | R _{DS(on)} Typ (Ω) | Pack age Type |
|---------------|------------|--------|---------------------|------------------------|------------------------|-------------------------|-------------------------|------------------------|-----------------------------|-------------------------------------|---------------------|-------------------|---------------------|---------------------|------------------------------------|-----------------------|-----------------------------|---------------|
| LV8741V-MPB-E | Pb-free | Active | Step per/ Brus h DC | 9.5 | 35 | 2.7 | 5.5 | 1.5 | 1.75 | $\frac{1}{2}$ $\frac{1}{1}$? | Clo ck Par allel | | Exter nal Resi stor | | Over-Cur rent Ther mal UV LO | | 1 | SSOP-44K EP |
| LV8741V-TLM-E | Pb-free | Active | Step per/ Brus h DC | 9.5 | 35 | 2.7 | 5.5 | 1.5 | 1.75 | $\frac{1}{2}$ $\frac{1}{1}$? | Clo ck Par allel | | Exter nal Resi stor | | Over-Cur rent Ther mal UV LO | | 1 | SSOP-44K EP |

For more information please contact your local sales support at www.onsemi.com

Created on: 7/11/2015