

Product Overview

LV8713T: Stepping Motor Driver, PWM, Constant Current Control

For complete documentation, see the data sheet.

The LV8713T is a microstepping motor driver with built-in translator for easy operation. It supports full-step, half-step, 1/16-step, and 1/32-step resolution. The LV8713T is optimal for driving stepping motors of scanners and small printers.

Features

- Control mode can be set to 2-phase, 1-2 phase, 4W1-2 phase, or 8W1-2 phase
- Microstep can control easily by the CLK-IN input.
- Stand-by Current: 0uA
- TSSOP24 Package
- Single-channel PWM constant-current control stepping motor driver incorporated.
- V_M max = 18V
- IO max = 0.8A
- $R_{ON} = 1.1$ (upper and lower total, typical, $T_a = 25C$)
- A thermal shutdown circuit and a low voltage detecting circuit are built into

Benefits

- Various Step Adjustment Available
- Easy Control for Micro-step Drive
- Low Consumption
- Small Design

Applications

- Stepper Motors
- Computing & Peripherals

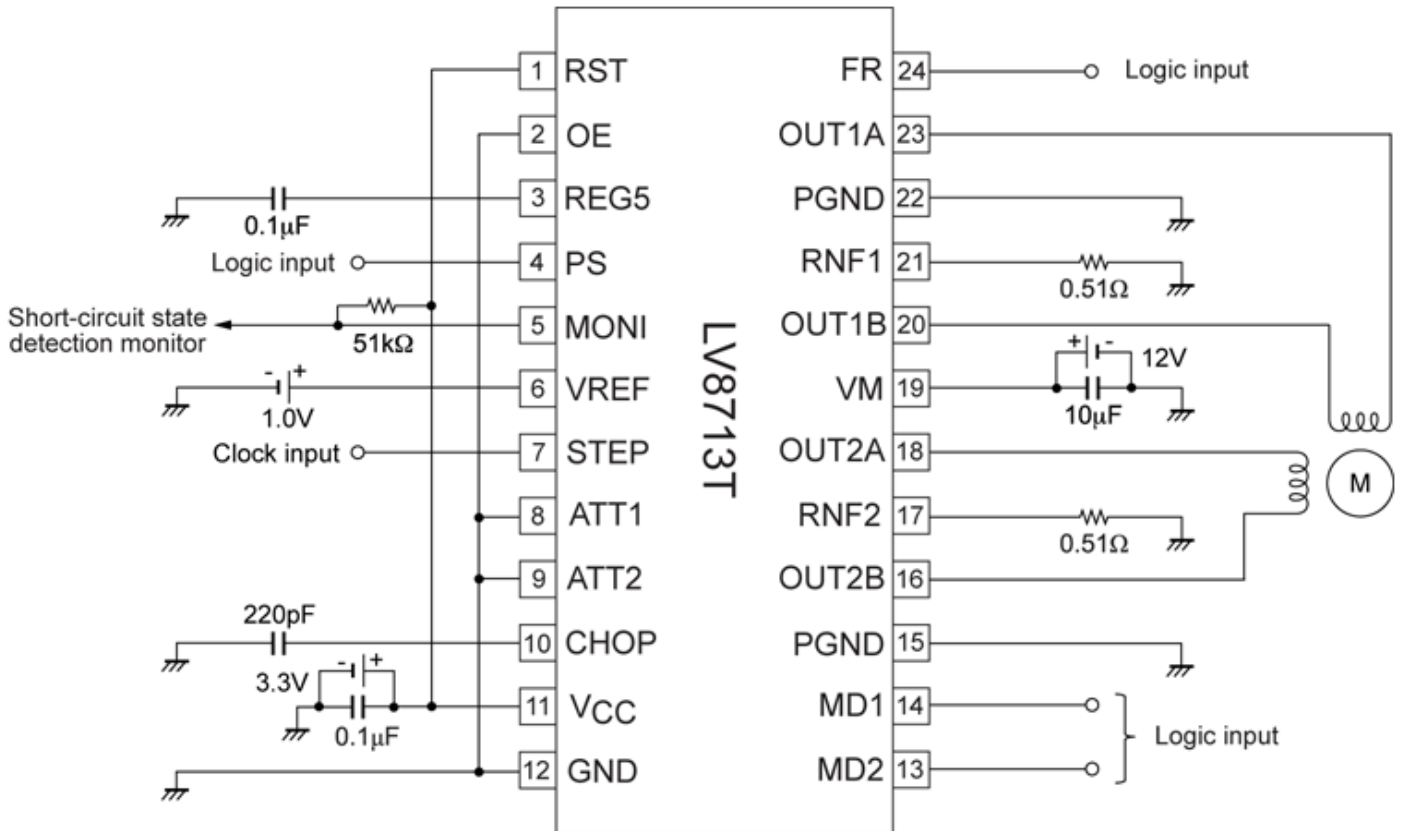
End Products

- Security Cameras
- Document Scanner
- PoE Point of Sales Terminal
- PoE Security Camera

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	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 Resolution	Control Type	Current Sense	Fault Detection	Package Type
LV8713T-TLM-H	2.0333	Pb-free Halide free	Active	4	16	2.7	5.5	0.8	1	1/32	Clock	External Resistor	Thermal UVLO	TSSOP-24

Application Diagram



The formulae for setting the constants in the examples of the application circuits above are as follows :

Constant current (100%) setting

When $V_{REF} = 1.0V$

$$I_{OUT} = V_{REF}/5/RNF \text{ resistance}$$

$$= 1.0V/5/0.51\Omega = 0.392A$$

Chopping frequency setting

$$F_{chop} = I_{chop}/(C_{chop} \times V_{tchop} \times 2)$$

$$= 10 \mu A / (220pF \times 0.5V \times 2) = 45kHz$$

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

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