



Product Overview

LB1848MC: Low-Voltage/Low Saturation Voltage Bidirectional Motor Driver

For complete documentation, see the data sheet

Product Description

The LB1848MC is 2-channel low-voltage, low saturation voltage type bidirectional motor driver IC that is optimal for use as 2-phase stepping motor drivers in printers, cameras and other portable equipment. The output circuits are of the bipolar type, with PNP transistors in the upper side and NPN transistors in the lower side, and they achieve low saturation output and low power characteristics despite being provided in a miniature package. The LB1848MC products can directly control a motor from signals from a microcontroller. The LB1848MC is optimal for 2-phase excitation drive for 2-phase stepping motors using 3-input logic (ENA, IN1 and IN2). Another point is that these IC include built-in thermal shutdown circuits so that IC scorching or burning is prevented in advance even if the IC output is shorted.

Features

- Low saturation voltage. $V_{O(sat)} = 0.55$ V typical at $I_O = 400$ mA
- Standby current: zero
- Thermal shutdown circuit
- Miniature package: MFP-10S (6.5 x 5.1 mm²)
- Soft off function that reduces power supply line noise when switching from drive to standby modes. (Requires the use of one external capacitor.)
- No limitations on the magnitude relationship between the power supply voltage (V_{CC}) and the input voltage (V_{IN})
- Optimal for 2 phase excitation drive for 2-phase stepping motors
- Through-current prevention circuit

Benefits

- Low input voltage device available
- Low consumption
- Thermal protection
- Small mounting space
- Low noise available
- Easy control

Applications

- Industrial
- Consumer

End Products

- PoE Security Camera
- PoE Point of Sales Terminal
- Digital Video Recorder
- Document scanner
- BD-player

Part Electrical Specifications

Product	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 Reso- lution	Contr- ol Type	Feed- back Meth- od	Curre- nt Sens- e	Regu- lator Outp- ut	Fault Dete- ction	Flyba- ck Prote- ction	$R_{DS(on)}$ Typ (Ω)	Pack- age Type
LB1848MC-AH	Pb-free Halide free	Active	2.5	7.5	2.5	7.5		0.8	1	Paral- lel		None		Ther- mal			SOIC- 10 NB

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

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