



LB1833M

Low-Saturation Bidirectional Motor Driver for Low-Voltage Applications

Overview

The LB1833M is a low-saturation stepping motor driver IC for use in low-voltage applications. It is especially suited for use in portable equipment such as printer, FDD, camera.

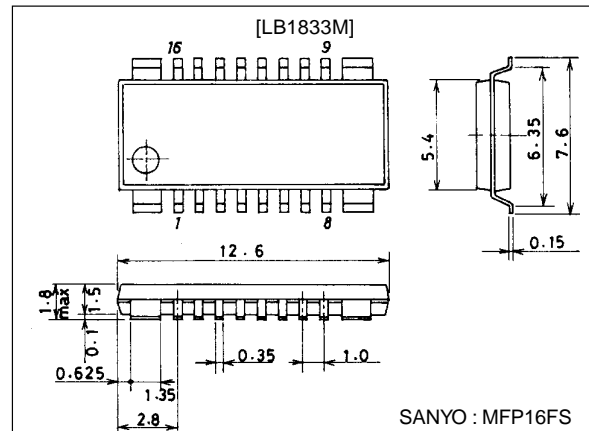
Features

- Capable of being operated from a low voltage (2.5V min).
- Low saturation voltage.
(Upper transistor+low transistor residual voltage 1.0V max at 400mA).
- Through current preventer on-chip.
- Logic power supply and motor power supply are separate.
- On-chip spark killer diodes.
- Possible to increase the internal allowable power dissipation because the package is compact (MFP-16FS) and heat can be radiated easily to the outside.

Package Dimensions

unit:mm

3097-MFP16FS



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V _{CC} max		-0.3 to +8.0	V
	V _S max		-0.3 to +8.0	V
Output supply voltage	V _{OUT}		-0.3 to V _S +V _{SF}	V
Input supply voltage	V _{IN}		-0.3 to +8.0	V
GND pin flow-out current	I _{GND}	per channel	1.0	A
Allowable power dissipation	Pd max1	IC only	900	mW
	Pd max2	Mounted on specified board (20×30×1.5mm ³ glass epoxy)	1200	mW
Operating temperature	T _{opr}		-20 to +75	°C
Storage temperature	T _{stg}		-40 to +125	°C

Allowable Operating Conditions at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V _{CC}		2.5 to 7.0	V
	V _S		1.8 to 7.0	V
Input high-level voltage	V _{IH}		1.8 to 7.0	V
Input low-level voltage	V _{IL}		-0.3 to +0.7	V

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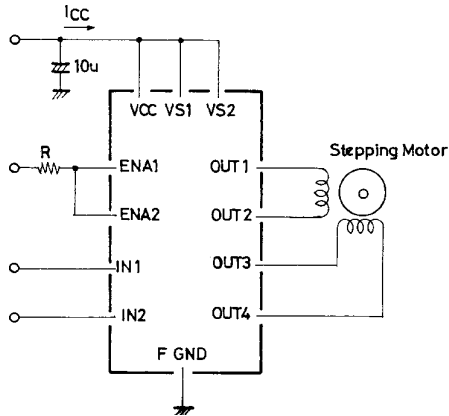
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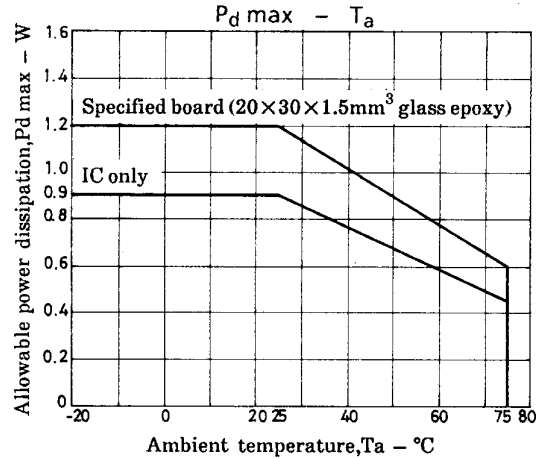
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82098HA (KT)/2070TA/TS No.3297-1/3

Sample Application Circuit



Note : Use one of the FRAME-GND pins for grounding. when the Cu-foild side is soldered, heat radiation can be more improved.



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