

R2A30427BM

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1-Channel Motor Driver IC for DSC, DVC and Surveillance Cameras

Overview

R2A30427BM is a semiconductor integrated circuit that incorporates driver circuits suitable for digital camera etc.

Features

- Using CMOS process
- Small 6-pin WLP package
- With built-in 1CH full swing H bridge circuit
- With built-in EN/IN control logic
- With built-in standby function at EN=L and IN=L
- Single power supply specification and I/O is independent of VM voltage (typ = 1.8V from control MCU)
- With built-in thermal shutdown circuit

Application

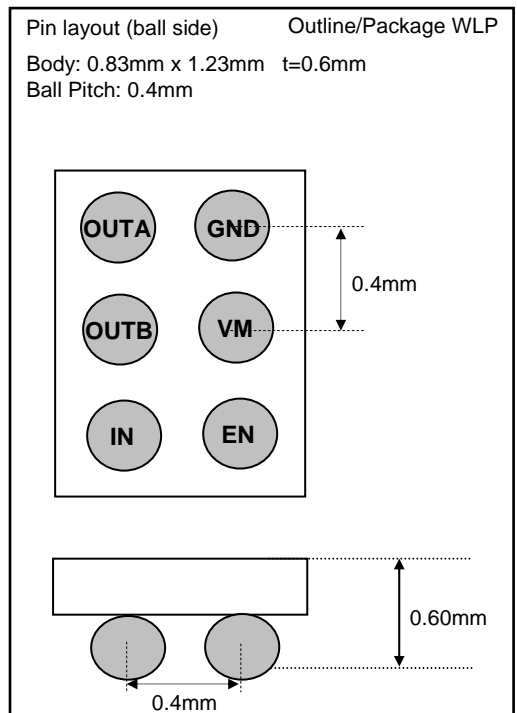
Motor driver for digital still camera.

Recommended operating condition

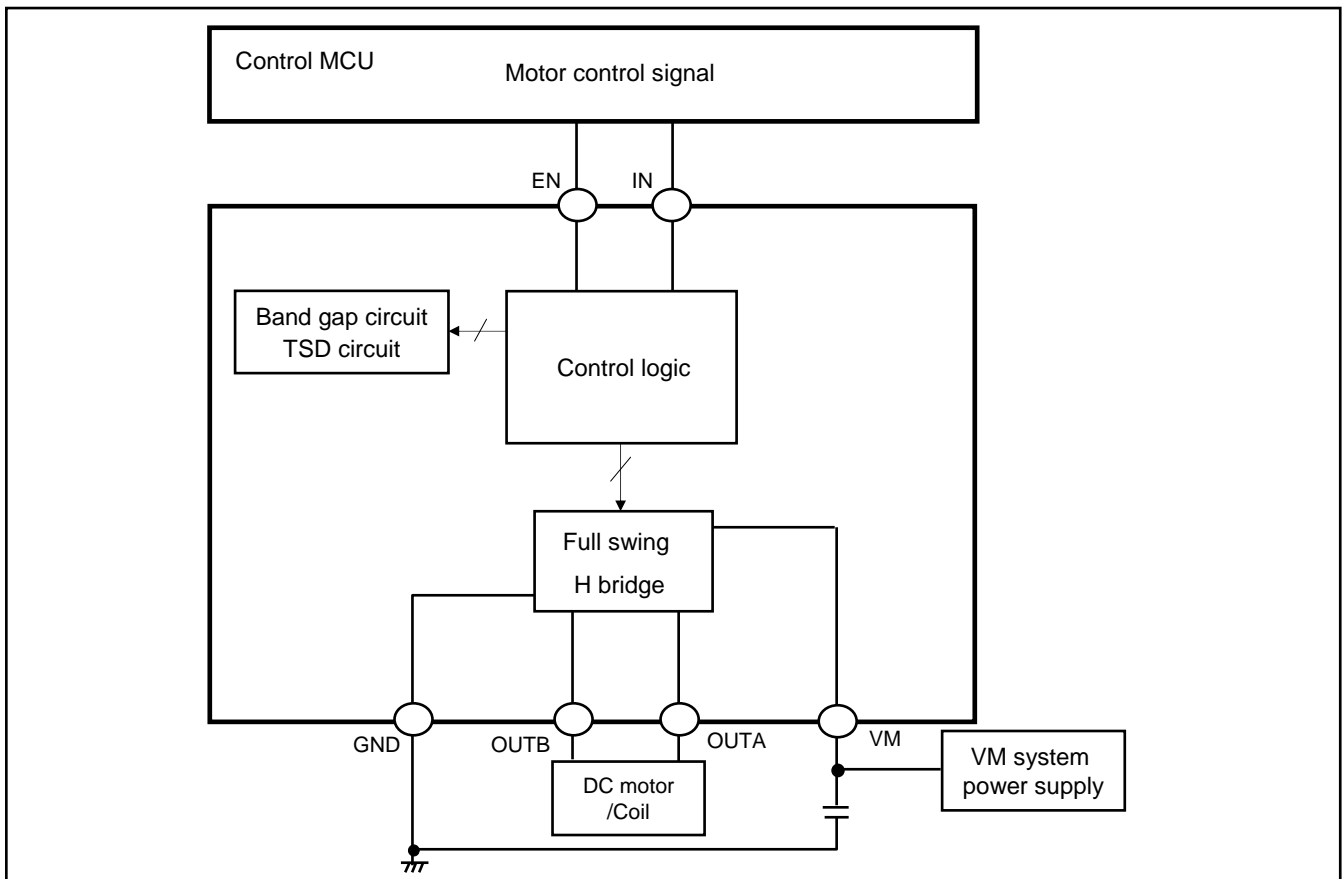
Power-supply voltage range VM: 2.7V~5.5V
Rated power-supply voltage VM: 5.0V

Truth Table

EN	IN	OUTA	OUTB	Output
L	—	Z	Z	OFF state
H	L	H	L	Forward
H	H	L	H	Reverse



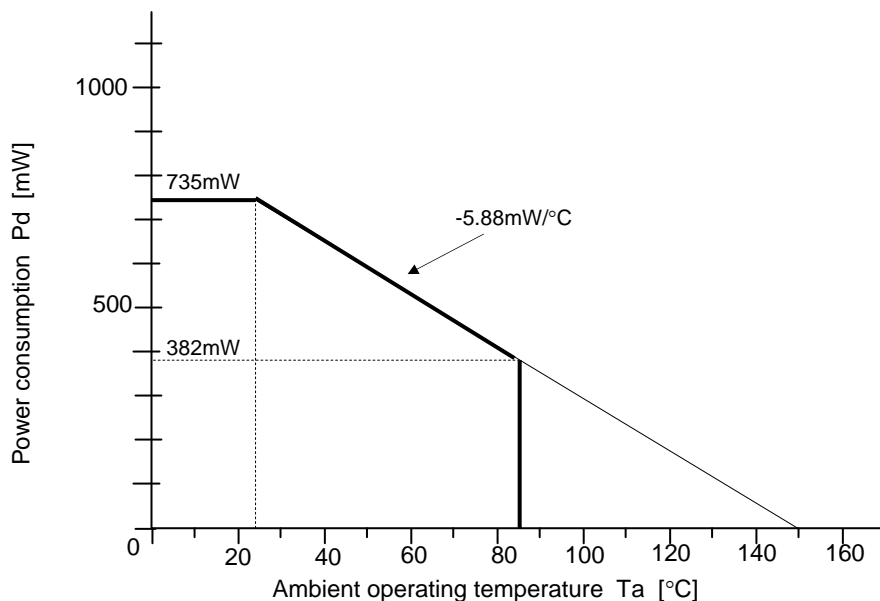
Block chart and example of applied circuit



Absolute Maximum Ratings (Unless specified, the ambient temperature is 25°C)

Item	Symbol	Rated value	Unit	Remarks
Power supply voltage	VM	6.5	V	Note1
Direct current	Iod	±600	mA/ch	Note4 DC
Instantaneous output current	Iop	±800	mA/ch	Note4 PW < 10ms, Duty ≤ 20%
Allowable power consumption	Pd	735	mW	Note2 (Ta=25°C)
Thermal derating ratio	Kθ	-5.88	mW/°C	Note2 (Ta ≥ 25°C)
Max. junction temperature	Tj	150	°C	
Applied Input Voltage	Vin	-0.3~3.6	V	Note3
Ambient operating temperature	Topr	-30~85	°C	
Storage temperature	Tstg	-40~150	°C	

- Notes: 1. As a rule, do not apply reverse power-supply voltages.
 2. Glass epoxy board: 76.2mm x 114.5mm x 1.6mm, copper-occupancy ratio in a 4-layer board: 20% in layers 1 and 4, 100% in layers 2 and 3. Note that the allowable power consumption changes according to the conditions imposed on the board.
 3. As a rule, do not apply voltages above the power-supply voltage or below the GND voltage.
 4. The total output current does not exceed the rated value in usage with multiple channels simultaneously turned on.

Thermal Derating Curve**[Remarks]**

The electric power which the power consumption of this IC with the output transistor becomes dominant.

Output transistor power consumption formula

<Full Swing>: (output current)² x ON resistance E.g. (500mA)² x 2.0ohm=500mW

When the ambient temperature is 25°C or more, refer to the above figure in selecting the required heat sink.

Ordering Information

Orderable Part No.	Package Code	Quantity
R2A30427BM#W0	SWBG0006LA-A	2500 pcs

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