

Small PKG Half Bridge Driver

■ GENERAL DESCRIPTION

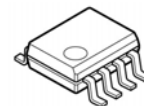
The NJW4801 is a general purpose, half bridge power driver capable of supplying $\pm 450\text{mA}$ current.

The internal gate driver drives high-side/low-side power MOSFET, therefore, it has fast switching.

Additionally, it has protection features such as over current protection and thermal shutdown. And in the case of failure, it can output a fault flag.

It is suitable for power switching applications of DSP/micro controller.

■ PACKAGE OUTLINE



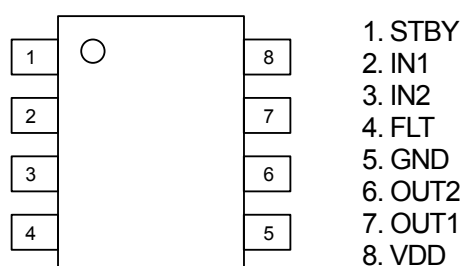
NJW4801R

■ FEATURES

- Output Switch Current $\pm 450\text{mA}$
- Operating Voltage 8.0V to 35V
- High-side and Low-side SW is available independently-function
- Up to 700kHz Switching Frequency
- Thermal Shut Down
- Over Current Protection
- Under Voltage Lockout
- Fault Indicator Output
- Stand-by Current $I_{QSTBY} = 3\mu\text{A}$ (typ.)
- Package Outline MSOP8 (VSP8)*

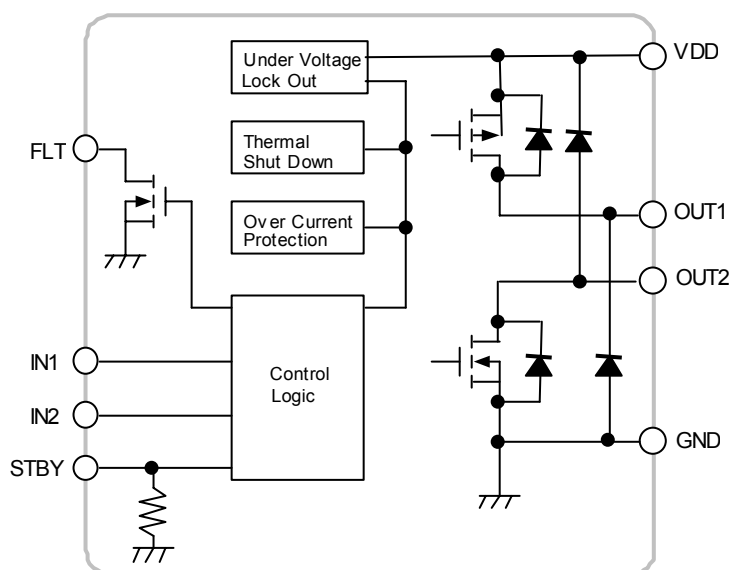
* MEET JEDEC MO-187-DA

■ PIN CONFIGURATION



NJW4801R

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	MAXIMUM RATINGS	UNIT	REMARKS
Supply Voltage	V ⁺	40	V	VDD-GND Pin
Input Voltage	V _{STBY}	-0.3 to 6	V	STBY-GND Pin
Input Voltage	V _{IN1} V _{IN2}	-0.3 to 6	V	IN1/IN2-GND Pin
FLT pin Voltage	V _{FLT}	-0.3 to 6	V	FLT-GND Pin
Power Dissipation	P _D	595 (*1) 805 (*2)	W	—
Operating Junction Temperature	T _j	-40 to +150	°C	—
Operating Temperature Range	T _{opr}	-40 to +85	°C	—
Storage Temperature Range	T _{stg}	-50 to +150	°C	—

(*1): Mounted on glass epoxy board. (76.2×114.3×1.6mm:based on EIA/JDEC standard, 2Layers)

(*2): Mounted on glass epoxy board. (76.2×114.3×1.6mm:based on EIA/JDEC standard, 4Layers),

internal Cu area: 74.2×74.2mm

■ RECOMMENDED OPERATING CONDITIONS

(Ta=25°C)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	REMARKS
Operating Voltage	V _{opr}	8	—	35	V	VDD-GND Pin
Output Switch Current	I _{OM}	0	—	450	mA	OUT Pin
Input Voltage	V _{STBY}	0	—	5.5	V	STBY-GND Pin
Input Voltage	V _{IN1} , V _{IN2}	0	—	5.5	V	IN1/IN2-GND Pin
FLT pin Voltage	V _{FLT}	0	—	5.5	V	FLT-GND Pin

■ THERMAL CHARACTERISTICS

(Ta=25°C)

PARAMETER	SYMBOL	THERMAL RESISTANCE	UNIT
Thermal Resistance between T _j and T _a	θ _{ja}	210 (*1) 155 (*2)	°C/W
Thermal Resistance between T _j and T _{C1}	ψ _{jt}	33 (*1) 25 (*2)	°C/W

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Power Dissipation vs. Ambient Temperature

