



JW7228/JW7228P

100V High-side UV/OV/OC and
Reverse Protection Controller with Circuit Breaker

DESCRIPTION

The JW[®]7228 and JW[®]7228P are high-side protection controllers, JW7228/JW7228P provide intelligent control of a N-channel MOSFET during these applications where the input voltage may be too low, too high or even negative.

JW7228 and JW7228P offer inrush current control to protect MOSFET against system voltage droop and transients. An external capacitor connected from TMR to GND establishes the timeout period to declare a fault condition and Gate is turned off when timeout condition occurs. The under voltage and over voltage protection threshold can be programmed via external resistor dividers. The JW7228 and JW7228P provide automatically restart mode. JW7228P provides PG function, PG keeping high when the voltage of $V_{SNS-VOUT}$ is lower than 1.25V. JW7228P is available in a 10-pin MSOP package and JW7228 is available in a SOP8 package.

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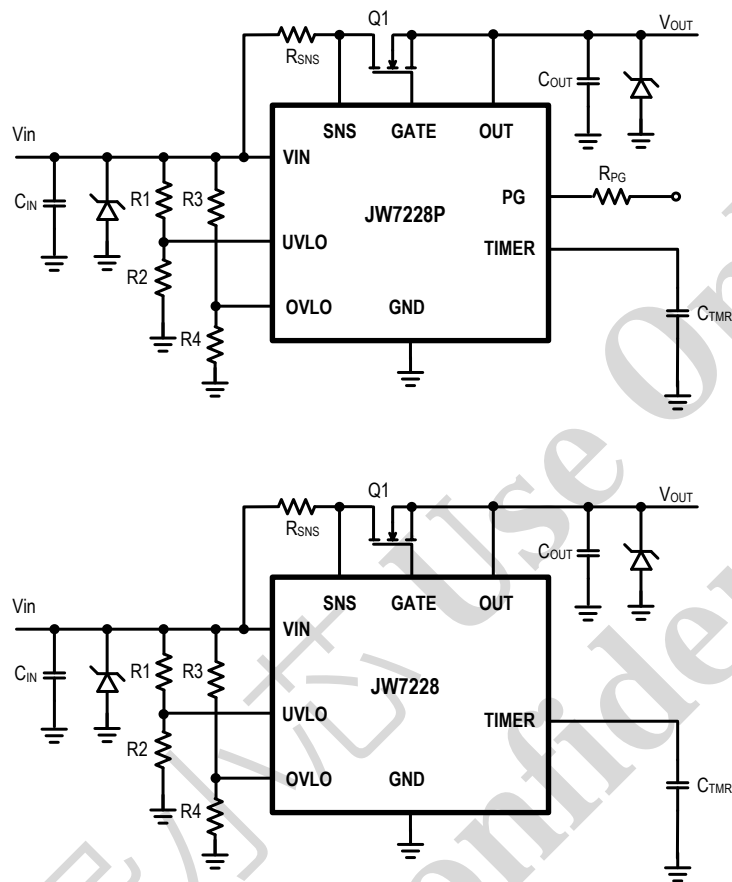
FEATURES

- Wide operating range: 9V to 80V
- Adjustable current limit: $55mV \pm 11\%$
- Circuit breaker function for severe over-current events
- Internal high side charge pump and gate driver for external N-channel MOSFET
- Adjustable under-voltage lockout (UVLO) and hysteresis
- Adjustable over-voltage lockout (OVLO) and hysteresis
- Initial insertion timer allows ringing and transients to subside after system connection
- Reverse voltage protection support
- Programmable fault timer
- Active high open drain power good output
- Available in automatic restart versions
- Quick output discharge
- Available in 10-pin MSOP package and SOP8 package

APPLICATIONS

- Server Backplane Systems
- Base Station Power Distribution Systems
- Solid State Circuit Breaker
- 24-V and 48-V Industrial Systems

TYPICAL APPLICATION



ORDER INFORMATION

DEVICE ¹⁾	PACKAGE	TOP MARKING ²⁾
JW7228PMSOP#TRPBF	MSOP10	JW7228P YW□□□□□
JW7228SOPB#TRPBF	SOP8	JW7228 YW□□□□□

Notes:

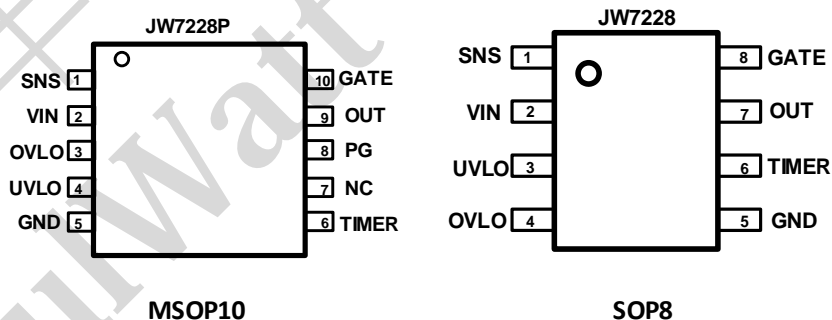
- 1) JW□□□□#TRPBF
 PB Free
 Tape and Reel (If "TR" is not shown, it means tube)
 Package Code
 Part No.
- 2) Line1: JW□□□□
 Product code
 Joulwatt LOGO
- Line2: YW□□□□□
 Lot number
 Week code
 Year code

DEVICE INFORMATION

DEVICE ¹⁾	FEATURE	STATEUS
JW7228PMSOP#TRPBF	Auto-recovery protection mode	Available
JW7228SOPB#TRPBF	Auto-recovery protection mode	Available

PINCONFIGURATION

TOP VIEW



PIN DESCRIPTION

Pin MSOP10	Pin SOP8	Name	Description
1	1	SNS	Current sense input. Used to measure current and regulate it. Kelvin sense is necessary to ensure accurate current limits

2	2	VIN	Input sense and power supply
4	3	UVLO	Under-voltage lockout. Under voltage protection threshold and hysteresis can be programmed via external resistor divider.
3	4	OVLO	Over-voltage lockout. Over voltage protection threshold and hysteresis can be programmed via external resistor divider.
5	5	GND	Ground.
6	6	TIMER	Timing set pin. The fault timeout period is programmed by an external capacitor connected from this pin to GND.
7	-	NC	Not be connected. The pin can't be connected to GND.
8	-	PG	Active high. An open drain power good indicator.
9	7	OUT	Output feedback. Used to measure the voltage across the MOSFET.
10	8	GATE	Gate driver output for external MOSFET

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