JW5121

65V/2A Asynchronous Step-Down Converter

DESCRIPTION

The JW®5121 is a current mode monolithic buck switching regulator. Operating with an input range of 4.5V~65V, the JW5121 delivers 2A of continuous output current with an integrated high side N-Channel MOSFET. At light loads, the regulator operates in low frequency to maintain high efficiency and low output ripple. Current mode control provides tight load transient response and cycle-by-cycle current limit.

The JW5121 guarantees robustness with short-circuit protection, thermal protection, current run-away protection, and input under voltage lockout.

The JW5121 is available in 8-pin ESOP package, which provides a compact solution with minimal external components.

FEATURES

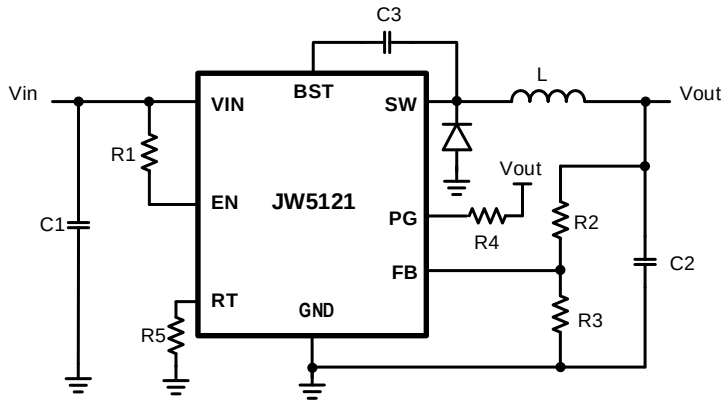
- 4.5V to 65V operating input range
  2A output current
- High efficiency at light load
- Internal soft-start (ESOP8)
- Adjustable switching frequency
- Input under voltage lockout
- Current run-away protection
- Short circuit protection
- Thermal protection
- Available in ESOP8 package

APPLICATIONS

- Distributed Power Systems
- Automotive Systems
- High Voltage Power Conversion
- Industrial Power Systems
- Battery Powered Systems

TYPICAL APPLICATION

Step Down Regulators



ORDER INFORMATION

DEVICE[1)]	PACKAGE	TOP MARKING[2)]
JW5121ESOP#TRPBF	ESOP8	JW5121 YW□□□□□

Notes:

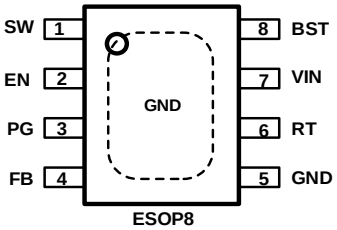
1) JW□□□□# TRPBF
- PB Free
- Tape and Reel(If"TR" is not shown, it means tube)
- Package Code
- Part No.

2) Line1: JW□□□□
- Product code
- Joulwatt LOGO

Line2: YW□□□□□
- Lot number
- Week code
- Year code

PIN CONFIGURATION

TOP VIEW



ESOP8

PIN DESCRIPTION

Pin	Name	Description
1	SW	SW is the switching node that supplies power to the output. Connect the output LC filter from SW to the output load.
2	EN	Drive EN pin high to turn on the regulator and low to turn off the regulator.
3	PG	Open drain output for power-good flag. Use a 100kΩ pull-up resistor to logic rail or other DC voltage no higher than 20V.
4	FB	Output feedback pin. FB senses the output voltage and is regulated by the control loop to 800mV. Connect a resistive divider at FB.
5/EP	GND	Ground.
6	RT	Switching frequency program input. Connect a resistor from this pin to ground to set the switching frequency.
7	VIN	Input voltage pin. VIN supplies power to the IC. Connect a 4.5V to 65V supply to VIN and bypass VIN to GND with a suitablylarge capacitor to eliminate noise on the input to the IC.
8	BST	Bootstrap pin for top switch.

IMPORTANT NOTICE

- Joulwatt Technology Inc. reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein.
- Any unauthorized redistribution or copy of this document for any purpose is strictly forbidden.
- Joulwatt Technology Inc. does not warrant or accept any liability whatsoever in respect of any products purchased through unauthorized sales channel.