

Stock Ticker: 688141



SELECTION GUIDE



2025
Q1

Automotive IC
BMS AFE and Protector
Multi-phase Controller and DrMOS
High Current Buck Converter and Controller
High Voltage Buck Converter and Controller
High Current Boost Converter
Buck-boost Converter and Controller
Isolated DC/DC Converter
IEEE 802.3 PSE and PD IC
Efuse, Hotswap and ORing
High Efficiency AC/DC Controller
More Analog Ics

JoulWatt Technology Co., Ltd.



Stock Ticker: 688141

COMPANY PROFILE



JoulWatt Technology Co., Ltd. (Stock Ticker: 688141) was founded in March 2013, it is a Mixed Signal & Power analog IC (Integrated Circuit) semiconductor company. The company adopts its own manufacturing process technology (BCD) for our products.

The company has always been committed to providing high efficiency, high performance and high reliability power management, signal chain and other analog devices, offering customers with one-stop shop for all their Analog semiconductor needs. The company consists a rich product portfolio, a broad range of applications, and rigorous inspection and testing for quality control. examples of Joulwatt products including DC/DC, AC/DC, linear power, battery management, signal chain and other product categories; The related applications cover many fields such as automotive electronics, computing and communication, industrial applications, renewable energy, consumer electronics, etc.

High performance analog and mixed digital-analog chip

Cutting-edge BCD Process
Advanced IC and Package Design
High Efficiency Power Structure

DIRECTORY

Switching DC/DC Power Supply	1
Step-down Converter	3
Step-up Converter	7
Buck-Boost	7
Controller	8
Isolated DC/DC	8
Power Module	8
LNB Power Supply	8
DC Input Lighting Product	8
Display	9
PMU	9
Vcore Power	10
Multi-phase Controller	12
DrMOS	12
AC/DC Power Supply	13
AC/DC Synchronous Rectifier	14
AC/DC Flyback PWM IC	14
AC/DC Half Bridge IC	15
AC/DC Special IC	15
PFC Controller	15
Offline Buck Regulator	16
BMS	17
BMS Special IC	25
Battery Protection	25
Analog Front-End	25
Charger	26
Linear Power Supply	27
Load Switch and USB Switch	28
EFuse and Hotswap	28
ORing and Ideal Diode	28
Reset	29
LDO	29
PoE-PSE	30

PoE-PD	30
USB Charging Controller	30
H-Bridge	31
Gate Driver ICs	33
Analog ICs	35
General-Purpose Operational Amplifier	36
Precision Operational Amplifier	36
Instrumentation Amplifier	36
Comparators	36
Current-Sensing Amplifier	36
Digital Current-Sensing	36
Analog Switch	36
Reference	37
High Precision Δ - Σ ADC	37
High Precision SAR ADC	37
Clock Buffer	37
Automotive Products(AEC-Q100)	38
Automotive Buck Converter	42
Automotive Buck Controller	42
Automotive Boost Converter	42
Automotive Boost Controller	42
Automotive Buck-boost Controller	42
Automotive Power Module	43
Automotive DrMOS	43
Automotive LED Backlight Driver	43
Automotive Load Switch and USB Switch	43
Automotive High Side Power Switch	43
Automotive LED Linear Solution	43
Automotive LDO	43
Automotive Gate Driver	44
Automotive Comparators	44
Automotive Current-Sensing Amplifier	44

LED Lighting	45
Non-isolated Switching Regulator	46
Isolated Switching Regulator	48
Linear Solution	48
Dimmable Solution	49
DC Input Lighting Product	50
Ripple Remover	50
Electric Shock Protection IC	51
AC/DC Special IC	51

The background of the page is a large architectural rendering of a modern, multi-story office building. The building has a curved facade with a grid of glass windows and a prominent 'JW' logo on its upper section. It is set against a backdrop of rolling hills under a clear sky. The title 'Product Index' is overlaid on the left side of the building.

Product Index

Switching DC/DC Power Supply

JoulWatt provides a series of isolated or non-isolated DC/DC power supply products, including step-down, step-up, buck-boost, and flyback regulators, etc.

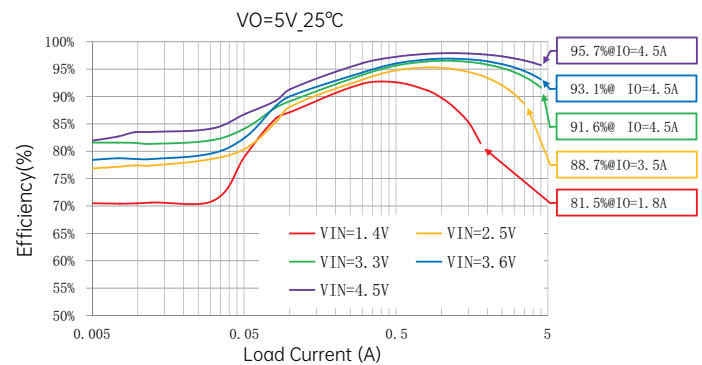
Synchronous Step-up Boost Converter with Output Disconnect

Key Features

- Minimum Start-up Input Voltage
- 1.2V to 5.0V Input Voltage Range
- 2.5V to 5.5V Output Voltage Range
- Support 5V/3.5A Output from 2.8V Input
- Up to 9A Switch Peak Current Limit
- 640kHz Pseudo-Constant Frequency Switching
- Low Quiescent Current: <27uA
- High Efficiency over Full Load Range
- True Output Disconnection from Input
- Thermal Shutdown and Output Short Circuit Protection
- Package: UDFN2x2-7

Application Fields

- Battery Powered Systems
- Power Banks, Juice Packs, Battery Back-Up
- Electronic Cigarettes
- Consumer Electronic Accessories
- USB Power Supplies



JWM9123EC 6V/3A Sync. Step-Down Converter Module

Key Features

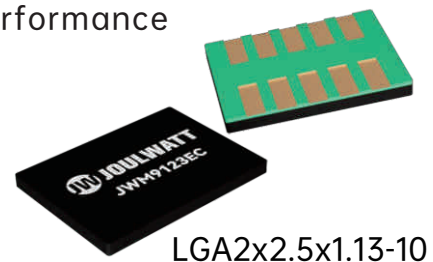
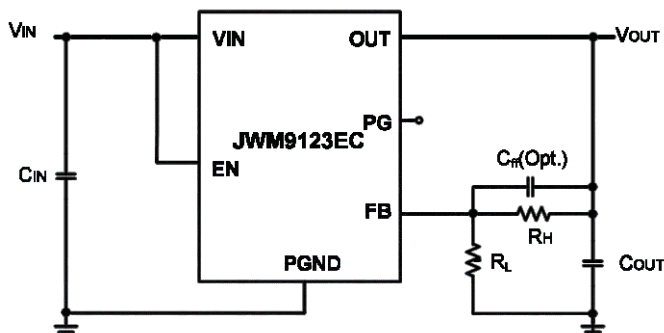
- 2.9V to 6V operating input range
- Up to 3A output current
- 0.6V to VIN adjustable output voltage
- 2MHz switching frequency
- 100% duty cycle for lowest dropout
- Power good indicator
- Output discharge
- Input under voltage lockout
- Output short circuit protection
- Thermal protection

Application Fields

- Battery-powered Application
- Hard Disk Drives
- Optical Modules
- Medical Instruments
- Portable Devices

Benefits

- Small Size
- Easy design
- High efficiency
- Good Thermal
- Performance



Step-down Converter VIN Max <10V

P/N	Regulated Outputs	V _{IN} (V)	I _{OUT} (A)	V _{FB} (V)	I _Q (uA)	F _{SW} (kHz)	Power Good	Soft Start	Light Load	Sync	Control Method	Package
JW5711	1	2.5~5.5	0.3	1.2~3.3	0.36	1000	N	Internal	PFM	Y	COT	WLCS8P8
JW5711A	1	2.5~5.5	0.3	0.7~3.1	0.36	1000	N	Internal	PFM	Y	COT	WLCS8P8
JW5716	2	2.5~5.5	0.3	0.7~3.3	0.36	1000	Y	Internal	PFM	Y	COT	DFN3x2-12
JW5710	2	3.3~10	0.4	1.8~3.3	0.4	1000	Y	Internal	PFM	Y	COT	DFN3x2-12
JW5715	2	3.3~10	0.4	1.8~3.3	0.4	1000	Y	Internal	PFM	Y	COT	DFN3x2-12
JW5712	1	2.3~5.5	0.6	1.2~3.3	0.36	1200	N	Internal	PFM	Y	COT	WLCS8P8
JW5712A	1	2.3~5.5	0.6	0.7~3.1	0.36	1200	N	Internal	PFM	Y	COT	WLCS8P8
JW5717	2	2.3~5.5	1.2	0.7~3.3	0.36	1000	Y	Internal	PFM	Y	COT	DFN3x2-12
JW5250A	1	2.7~6	1	0.6	40	1500	N	Internal	PFM	Y	COT	SOT23-5
JW5250S	1	2.7~6	1	0.6	40	1500	N	Internal	PFM	Y	COT	SOT23-5 / SOT563
JW5291	1	2.7~6	1	0.6	40	1500	N	Internal	PFM	Y	COT	SOT563
JW5291P	1	2.7~6	1	0.6	40	1500	Y	Internal	PFM	Y	COT	SOT563
JW5291F	1	2.7~6	1	0.6	40	1500	N	Internal	FCCM	Y	COT	SOT563
JW5291PF	1	2.7~6	1	0.6	40	1500	Y	Internal	FCCM	Y	COT	SOT563
JW5256	1	2.7~6	1.2	0.6	40	1500	N	Internal	PFM	Y	COT	SOT23-5
*JW5211	1	2.5~6	1.2	0.6	50	1500	Y	Internal	PFM	Y	PCM	SOT23-5 / SOT23-6
JW5262C	1	2.6~6	1.5	0.6	40	1500	Y	Internal	PFM	Y	COT	SOT23-5 / SOT23-6
JW5262CM	1	2.6~6	1.5	0.6	40	1500	Y	Internal	PFM	Y	COT	SOT23-5 / SOT23-6
JW5262CF	1	2.6~6	1.5	0.6	40	1500	N/Y	Internal	FCCM	Y	COT	SOT23-5 / SOT23-6
JW5262CFM	1	2.6~6	1.5	0.6	40	1500	N/Y	Internal	FCCM	Y	COT	SOT23-5/SOT23-6
*JW5231	1	2.5~5.5	1.5	0.6	50	1500	Y	Internal	FCCM	Y	PCM	SOT23-5 / SOT23-6
JW5215	1	2.6~6	1.5	1.8	50	2700	N	Internal	PFM	Y	COT	DFN1.5x1.5-6
JW5217	1	2.5~6	2	0.45	30	2000	Y	Internal	PFM	Y	COT	DFN2X2-8
JW5292	1	2.7~6	2	0.6	47	1850	N	Internal	PFM	Y	COT	SOT563
JW5292P	1	2.7~6	2	0.6	47	1850	Y	Internal	PFM	Y	COT	SOT563
JW5292F	1	2.7~6	2	0.6	47	1850	N	Internal	FCCM	Y	COT	SOT563
JW5292PF	1	2.7~6	2	0.6	47	1850	Y	Internal	FCCM	Y	COT	SOT563
*JW5223	1	2.5~6	2	0.6	40	1500	Y	Internal	PFM	Y	PCM	SOT23-5 / SOT23-6
*JW5252	1	2.5~6	2	0.6	60	1000	Y	Internal	PFM	Y	COT	SOT23-5/TSOT23-8/ SOT23-6
JW5258	2	2.6~5.5	2	0.6	40	1500	Y	Internal	PFM	Y	COT	DFN2x2-10
JW5262N	1	2.6~6	2	0.6	40	1500	Y	Internal	PFM	Y	COT	SOT23-5 / SOT23-6
JW5262NM	1	2.6~6	2	0.6	40	1500	Y	Internal	PFM	Y	COT	SOT23-5 / SOT23-6
JW5262NF	1	2.6~6	2	0.6	40	1500	N	Internal	FCCM	Y	COT	SOT23-5
JW5262	1	2.7~6	2.5	0.6	40	1000	Y	Internal	PFM	Y	COT	SOT23-5 / SOT23-6
JW5262M	1	2.7~6	2.5	0.6	40	1000	Y	Internal	PFM	Y	COT	SOT23-5
JW5262L	1	2.7~6	2.5	0.6	40	1000	Y	Internal	PFM	Y	COT	SOT23-5 / SOT23-6
*JW5222N	1	2.5~6	2.5	0.6	60	1000	Y	Internal	PFM	Y	PCM	SOT23-6
*JW5222R	1	2.5~6	2.5	0.6	60	1000	Y	Internal	PFM	Y	PCM	SOT23-6
*JW5213H	1	2.5~6	3	0.6	50	1000	Y	Internal	PFM	Y	PCM	DFN2x2-8
*JW5213L	1	2.5~6	3	0.6	50	1000	Y	Internal	PFM	Y	PCM	DFN2x2-8
JW5214L	1	2.5~6	3	0.6	50	800	Y	Internal	PFM	Y	COT	DFN2x2-8
JW5263SH	1	2.5~6	3	0.6	50	1000	Y	Internal	PFM	Y	COT	DFN 2X2-8
JW5263SL	1	2.5~6	3	0.6	50	1000	Y	Internal	PFM	Y	COT	DFN 2X2-8
JW5219	1	2.5~5.5	3	0.6	65	1500	N	Adjustable	FCCM	Y	COT	QFN1.5X1.5-7
JW5219P	1	2.5~5.5	3	0.6	65	1500	Y	Internal	PFM	Y	COT	QFN1.5X1.5-7
JW5229	1	2.5~5.5	3	0.4	55	1700	Y	Internal	PFM	Y	COT	QFN1.5*1.5-7
JW5293	1	2.7~6	3	0.6	40	1500	N	Internal	PFM	Y	COT	SOT563
JW5293P	1	2.7~6	3	0.6	40	1500	Y	Internal	PFM	Y	COT	SOT563
JWH5280	1	2.5~6	3	0.8	40	2000	Y	Internal	PFM	Y	COT	DFN2x2-7
*JW5255A	1	2.5~5.5	5	0.6	60	1000	Y	Adjustable	PFM	Y	COT	DFN3x3-10
JW5265	1	2.5~5.5	5	0.6	60	1000	Y	Adjustable	PFM	Y	COT	DFN3x3-10
JW5265F	1	2.5~5.5	5	0.6	60	1000	Y	Adjustable	FCCM	Y	COT	DFN3x3-10
JW5266	1	2.5~5.5	6	0.6	60	1000	Y	Adjustable	PFM	Y	COT	DFN3x3-10
JWH5276	1	2.95~7	6	0.6	210	400~2400	Y	Adjustable	FCCM	Y	COT	QFN3x3-16

*Contact JouWatt for New Designs

Step-down Converter VIN Max >10V

P/N	Regulated Outputs	V _{IN} (V)	I _{OUT} (A)	V _{FB} (V)	I _Q (uA)	F _{SW} (kHz)	Power Good	Soft Start	Light Load	Sync	Control Method	Package
*JW5033C	1	4.5~18	2	0.8	100	700	N	Internal	PFM	Y	PCM	SOT23-6
*JW5052C	1	4.5~18	2	0.6	100	700	N	Internal	PFM	Y	PCM	SOT23-6
*JW5059TC	1	4.5~18	2	0.765	150	600	N	Internal	PFM	Y	COT	SOT23-6
*JW5059TF	1	4.5~18	2	0.765	150	600	N	Internal	FCCM	Y	COT	SOT23-6
*JW5092	1	3.7~18	2	0.8	120	800	N	Internal	PFM	Y	PCM	TSOT23-6 / SOT563
JW5352	1	4.5~18	2	0.6	140	600	N	Internal	PFM	Y	COT	SOT23-6
JW5352H	1	4.5~18	2	0.6	140	1140	N	Internal	PFM	Y	COT	SOT23-6
JW5352M	1	4.5~18	2	0.6	140	600	N	Internal	PFM	Y	COT	SOT23-6
JW5352HF	1	4.5~18	2	0.6	140	1140	N	Internal	FCCM	Y	COT	SOT23-6
JW5352HM	1	4.5~18	2	0.6	140	1140	N	Internal	PFM	Y	COT	SOT23-6
JW5352HFM	1	4.5~18	2	0.6	125	1000	N	Internal	FCCM	Y	COT	SOT23-6
JW5359	1	4.5~18	2	0.765	140	600	N	Internal	PFM	Y	COT	SOT23-6
JW5359M	1	4.5~18	2	0.765	140	600	N	Internal	PFM	Y	COT	SOT23-6
JW5359F	1	4.5~18	2	0.765	140	600	N	Internal	FCCM	Y	COT	SOT23-6
JW5359FM	1	4.5~18	2	0.765	140	600	N	Internal	FCCM	Y	COT	SOT23-6
JW5360	1	4.5~18	2	0.6	140	600	N	Internal	PFM	Y	COT	DFN2x2-6
*JW5092A	1	4.5~18	2	0.8	140	600	N	Internal	PFM	Y	COT	SOT563
*JW5092H	1	4.5~18	2	0.8	140	1000	N	Internal	PFM	Y	COT	SOT563
*JW5092AF	1	4.5~18	2	0.8	140	600	N	Internal	FCCM	Y	COT	SOT563
JW5362H	1	4.5~18	2	0.6	150	1200	N	Internal	PFM	Y	COT	SOT563
JW5362HF	1	4.5~18	2	0.6	150	1200	N	Internal	FCCM	Y	COT	SOT563
JW5392	1	4.5~18	2	0.8	150	600	N	Internal	PFM	Y	COT	SOT563
JW5392F	1	4.5~18	2	0.8	150	600	N	Internal	FCCM	Y	COT	SOT563
JW5392H	1	4.5~18	2	0.8	150	1200	N	Internal	PFM	Y	COT	SOT563
JW5392HF	1	4.5~18	2	0.8	150	1200	N	Internal	FCCM	Y	COT	SOT563
JW5357	1	4.5~18	3	0.6	150	600	N	Internal	PFM	Y	COT	SOT23-6
JW5357M	1	4.5~18	3	0.6	150	600	N	Internal	PFM	Y	COT	SOT23-6
JW5357H	1	4.5~18	3	0.6	150	1140	N	Internal	PFM	Y	COT	SOT23-6
JW5357HF	1	4.5~18	3	0.6	150	1140	N	Internal	FCCM	Y	COT	SOT23-6
JW5357HM	1	4.5~18	3	0.6	150	1140	N	Internal	PFM	Y	COT	SOT23-6
JW5357HFM	1	4.5~18	3	0.6	122	1000	N	Internal	FCCM	Y	COT	SOT23-6
*JW5061TC	1	4.5~18	3	0.765	150	600	N	Internal	PFM	Y	COT	SOT23-6
*JW5061TF	1	4.5~18	3	0.765	150	600	N	Internal	FCCM	Y	COT	SOT23-6
JW5361	1	4.5~18	3	0.765	150	600	N	Internal	PFM	Y	COT	SOT23-6
JW5361M	1	4.5~18	3	0.765	150	600	N	Internal	PFM	Y	COT	SOT23-6
JW5361F	1	4.5~18	3	0.765	150	600	N	Internal	FCCM	Y	COT	SOT23-6
JW5361FM	1	4.5~18	3	0.765	150	600	N	Internal	FCCM	Y	COT	SOT23-6
JW5361H	1	4.5~18	3	0.765	150	1200	N	Internal	PFM	Y	COT	SOT23-6
JW5361HM	1	4.5~18	3	0.765	150	1200	N	Internal	PFM	Y	COT	SOT23-6
JW5361HF	1	4.5~18	3	0.765	150	1200	N	Internal	FCCM	Y	COT	SOT23-6
JW5361HFM	1	4.5~18	3	0.765	150	1200	N	Internal	FCCM	Y	COT	SOT23-6
*JW5040	1	3.8~18	3	0.8	120	500	N	Internal	PFM	Y	PCM	SOT563 / TSOT23-6
*JW5040C	1	4.5~16	3	0.8	100	500	N	Internal	PFM	Y	PCM	SOT23-6
*JW5057C	1	4.5~16	3	0.6	100	500	N	Internal	PFM	Y	PCM	SOT23-6
*JW5058S	1	4.5~18	3	0.6	150	1000	N	Internal	PFM	Y	COT	SOT23-6
*JW5093	1	4.5~18	3	0.8	140	600	N	Internal	PFM	Y	COT	SOT563
JW5371	1	4.5~18	3	0.765	150	600	N	Internal	PFM	Y	COT	TSOT23-6

*Contact JoulWatt for New Designs

Step-down Converter VIN Max >10V

P/N	Regulated Outputs	V _{IN} (V)	I _{OUT} (A)	V _{FB} (V)	I _Q (uA)	F _{SW} (kHz)	Power Good	Soft Start	Light Load	Sync	Control Method	Package
JW5371F	1	4.5~18	3	0.765	150	600	N	Internal	FCCM	Y	COT	TSOT23-6
JW5393C	1	4.5~18	3	0.8	150	600	N	Internal	PFM	Y	COT	SOT563
JW5393CF	1	4.5~18	3	0.8	150	600	N	Internal	FCCM	Y	COT	SOT563
JW5393	1	4.5~18	3	0.8	150	600	N	Internal	PFM	Y	COT	SOT563
JW5393F	1	4.5~18	3	0.8	150	600	N	Internal	FCCM	Y	COT	SOT563
JW5393H	1	4.5~18	3	0.8	150	1200	N	Internal	PFM	Y	COT	SOT563
JW5393HF	1	4.5~18	3	0.8	150	1200	N	Internal	FCCM	Y	COT	SOT563
JW5363H	1	4.5~18	3	0.6	150	1200	N	Internal	PFM	Y	COT	SOT563
JW5363HF	1	4.5~18	3	0.6	150	1200	N	Internal	FCCM	Y	COT	SOT563
JW5363F	1	4.5~18	3	0.6	150	600	N	Internal	FCCM	Y	COT	SOT563
JWH5042	1	4.5~18	3	0.8	380	187~1300	Y	Adjustable	FCCM	Y	PCM	QFN3.5x3.5-14
*JW5062T	1	4~18	4	0.765	260	600	Y	Internal	PFM	Y	COT	TSOT23-6 / TSOT23-8
*JW5062TF	1	4~18	4	0.765	260	600	Y	Internal	FCCM	Y	COT	TSOT23-6 / TSOT23-8
JW5372	1	4.5~18	4	0.765	150	600	N	Internal	PFM	Y	COT	TSOT23-6
JW5372F	1	4.5~18	4	0.765	150	600	N	Internal	FCCM	Y	COT	TSOT23-6
JW5394	1	4.5~18	4	0.8	150	600	N	Internal	PFM	Y	COT	SOT563
JW5394F	1	4.5~18	4	0.8	150	600	N	Internal	FCCM	Y	COT	SOT563
JW5056	1	4.5~18	5	0.76	130	560	N	Internal	PFM	Y	COT	TSOT23-6
JW5056F	1	4.5~18	5	0.76	130	560	N	Internal	FCCM	Y	COT	TSOT23-6
JW5305	1	4.5~18	5	0.765	130	580	Y	Internal	PFM	Y	COT	ESOP8
JW5305F	1	4.5~18	5	0.765	130	580	Y	Internal	FCCM	Y	COT	ESOP8
JW5005	1	4.5~18	5	0.6	130	500	N	Internal	PFM	Y	COT	TSOT23-6
JW5006	1	4.5~18	6	0.6	130	500	N	Internal	PFM	Y	COT	TSOT23-6
JW5066	1	4.5~18	6	0.76	130	560	N	Internal	PFM	Y	COT	TSOT23-6
JW5066F	1	4.5~18	6	0.76	130	560	N	Internal	FCCM	Y	COT	TSOT23-6
JW5306	1	4.5~18	6	0.765	130	580	Y	Internal	PFM	Y	COT	ESOP8
JW5306F	1	4.5~18	6	0.765	130	580	Y	Internal	FCCM	Y	COT	ESOP8
JWH5046	1	4.5~17	6	0.6	380	210~1770	Y	Adjustable	FCCM	Y	PCM	QFN3.5x3.5-14
JWH5083	1	4.5~17	8	0.6	580	400/800/1200	Y	Adjustable	FCCM	Y	COT	QFN3.5x3.5-18
JWH5084	1	4.5~17	12	0.6	580	400/800/1200	Y	Adjustable	FCCM	Y	COT	QFN3.5x3.5-18
JWH5085A	1	2.7~16	12	0.6	620	700/800/1000	Y	Adjustable	FCCM	Y	COT	QFN3x4-21
JWH5084H	1	4.5~17	14	0.6	580	400/800/1200	Y	Adjustable	FCCM	Y	COT	QFN3.5x3.5-18
JWH5086A	1	2.7~16	16	0.6	550	700/800/1000	Y	Adjustable	FCCM	Y	COT	QFN3x4-21
JWH5087A	1	2.7~16	20	0.6	550	700/800/1000	Y	Adjustable	FCCM	Y	COT	QFN3x4-21
JWH5087AW	1	2.7~16	20	0.6	550	700/800/1000	Y	Adjustable	FCCM	Y	COT	QFN3x4-19
JW5017F	1	4.5~26	1.2	0.8	40	1200	N	Internal	FCCM	Y	PCM	SOT23-6
JW5017S	1	4.5~26	1.2	0.8	40	1200	N	Internal	PFM	Y	PCM	SOT23-6
JW5027	1	3.8~24	2	0.8	120	1400	N	Internal	PFM	Y	PCM	SOT23-6
JW5031S	1	3.7~23	2	0.8	120	800	N	Internal	PFM	Y	PCM	TSOT23-6
JW5071	1	4.5~28	2	0.6	120	600	N	Internal	PFM	Y	PCM	SOT23-6
JW5057S	1	4~24	3	0.6	220	500	N	Internal	PFM	Y	COT	TSOT23-6
JW5065	1	4~24	3	0.8	260	450	N	Internal	Selectable	Y	COT	TSOT23-8
JW5070	1	4.5~28	3	0.596	50	500	N	Internal	PFM	Y	PCM	SOT23-6

*Contact JoulWatt for New Designs

Step-down Converter VIN Max >10V

P/N	Regulated Outputs	V _{IN} (V)	I _{OUT} (A)	V _{FB} (V)	I _Q (uA)	F _{SW} (kHz)	Power Good	Soft Start	Light Load	Sync	Control Method	Package
JW5173S	1	4.5~28	3	0.8	60	500	N	Adjustable	PFM	Y	COT	ESOP8
JW5069A	1	4~23	6	0.6	45	500	Y	Internal	PFM	Y	COT	QFN3x3-20
JW5069C	2	5.5~23	6	5.1	36	600	Y	Internal	PFM	Y	COT	QFN3x3-20
JW5168BS	2	4~23	8	3.35V	40	600	Y	Internal	PFM/USM	Y	COT	QFN2.5x2.5-16
JW5169BS	2	4~23	6	3.35V	40	600	Y	Internal	PFM/USM	Y	COT	QFN2.5x2.5-16
JW5186A	1	4~23	6	0.6	45	500	Y	Internal	PFM/USM	Y	COT	QFN3x3-20
JW5186AH	1	4~23	6	0.6	45	600	Y	Internal	PFM	Y	COT	QFN2.5x2.5-16
JW5186AU	1	4~23	6	0.6	45	500	Y	Internal	PFM/USM	Y	COT	QFN2.5x2.5-16
JW5186DU	1	4~23	6	0.6	45	500	Y	Internal	PFM/USM	Y	COT	QFN2.5x2.5-16
JW5186DH	1	4~23	6	0.6	45	600	Y	Internal	PFM	Y	COT	QFN2.5x2.5-16
JW5186CU	2	5.5~23	6	5.1	36	600	Y	Internal	PFM/USM	Y	COT	QFN2.5x2.5-16
JW5076	1	4~24	6	0.6	36	600	Y	Internal	PFM/USM	Y	I2	QFN2.5x2.5-16
JW5078	1	4~24	8	0.6	120	600	Y	Internal	PFM/USM	Y	I2	QFN2.5x2.5-16
JW5188A	1	4~23	8	0.6	120	600	Y	Internal	PFM/USM	Y	COT	QFN3x3-20
JW5188AU	1	4~23	8	0.6	45	500	Y	Internal	PFM/USM	Y	COT	QFN2.5x2.5-16
JW5188DU	1	4~23	8	0.6	45	500	Y	Internal	PFM/USM	Y	COT	QFN2.5x2.5-16
JW5188DH	1	4~23	8	0.6	45	600	Y	Internal	PFM	Y	COT	QFN2.5x2.5-16
JW5188AH	1	4~23	8	0.6	45	600	Y	Internal	PFM	Y	COT	QFN2.5x2.5-16
JW5188CU	2	5.5~23	8	5.1	36	600	Y	Internal	PFM/USM	Y	COT	QFN2.5x2.5-16
JW5138A	1	4.5~23	8	0.6	80	500	Y	Internal	PFM/USM	Y	COT	UQFN3x3-23
JW5138D	1	4.5~23	8	0.6	80	500	Y	Internal	PFM/USM	Y	COT	UQFN3x3-23
JW5138B	2	4.5~23	8	3.35	80	500	Y	Internal	PFM/USM	Y	COT	UQFN3x3-23
JW5138C	2	5.5~23	8	5.1	80	500	Y	Internal	PFM/USM	Y	COT	UQFN3x3-23
JW5068A	1	4~23	8	0.6	45	500	Y	Internal	PFM	Y	COT	QFN3x3-20
JW5068C	2	5.5~23	8	5.1	36	600	Y	Internal	PFM	Y	COT	QFN3x3-20
JW5079A	1	4~23	10	0.6	45	500	Y	Internal	PFM	Y	COT	QFN3x3-20
JW5079C	2	5.5~23	10	5.1	36	600	Y	Internal	PFM	Y	COT	QFN3x3-20
JW5075A	1	4~30	5	1	33	200~2200	Y	Internal	PFM	Y	PCM	EVQFN4.0x3.5
JW5077	1	4~30	6	1	33	200~2200	Y	Internal	PWM	Y	PCM	EVQFN4.0x3.5
JW5110	1	4.5~46	0.2	0.8	26	-	Y	Internal	PFM	Y	HYS	SOT23-6 / DFN2x3-8
JW5018	1	4.7~40	0.6	0.8	40	2000	N	Internal	PFM	Y	PCM	SOT23-6
JW5018B	1	4.7~40	0.6	0.8	40	800	N	Internal	PFM	Y	PCM	SOT23-6
JW5018Y	1	4.5~42	0.6	0.8	85	2100	N	Internal	PFM	Y	PCM	SOT23-6
JW5018X	1	4.5~42	0.6	0.8	85	1100	N	Internal	PFM	Y	PCM	SOT23-6
JW5018YF	1	4.5~42	0.6	0.8	85	2100	N	Internal	FCCM	Y	PCM	SOT23-6
JW5018XF	1	4.5~42	0.6	0.8	85	1100	N	Internal	FCCM	Y	PCM	SOT23-6
JW5100A	1	4.5~42	0.6	0.8	85	700	N	Internal	PFM	Y	PCM	SOT23-6
JW5100B	1	4.5~42	0.6	0.8	85	2100	N	Internal	PFM	Y	PCM	SOT23-6
JW5026	1	4.7~40	1	0.8	40	1100	N	Internal	FCCM	Y	PCM	SOT23-6
JW5015A	1	3.6~40	2	0.8	65	440	N	Internal	PFM	Y	PCM	ESOP8
JW5116F	1	4.7~40	3	0.8	65	100~700	N	Internal	PFM	N	PCM	ESOP8/ SOP8
JWH5102AS	1	4~36	2	0.8	45	410	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWH5102BS	1	4~36	2	0.8	45	1000	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWH5102CS	1	4~36	2	0.8	45	2100	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWH5102CSF	1	4~36	2	0.8	45	2100	Y	Internal	FCCM	Y	PCM	QFN3x2-12
JWH5103AS	1	4~36	3	0.8	45	410	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWH5103BS	1	4~36	3	0.8	45	1000	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWH5103CS	1	4~36	3	0.8	45	2100	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWH5103CSF	1	4~36	3	0.8	45	2100	Y	Internal	FCCM	Y	PCM	QFN3x2-12
JWH5155	1	4~36	5	1	33	200~2200	Y	Internal	PFM	Y	PCM	EVQFN4.0x3.5
JWH5156	1	4~36	6	1	33	200~2200	Y	Internal	PFM	Y	PCM	EVQFN4.0x3.5
JWH5157	1	4~36	7	1	33	200~2200	Y	Internal	PFM	Y	PCM	EVQFN4.0x3.5

Step-down Converter VIN Max >10V

P/N	Regulated Outputs	V _{IN} (V)	I _{OUT} (A)	V _{FB} (V)	I _Q (uA)	F _{SW} (kHz)	Power Good	Soft Start	Light Load	Sync	Control Method	Package
JW5117S	1	4.5~45	5	0.75	180	100~2000	N	Adjustable	PFM	N	PCM	ESOP8
JW5117	1	4.5~45	5	0.8	180	100~2000	Y	Adjustable	PFM	N	PCM	DFN4x4-10
JW5117C	1	4.5~45	5	0.8	180	100~2000	N	Internal	PFM	N	PCM	ESOP8
JW5126	1	4.5~65	0.2	0.8	26	-	Y	Internal	PFM	Y	HYS	SOT23-6 / DFN2x3-8
JW9520	1	4.5~65	1	0.8	130	100~2000	Y	Internal	PFM	N	PCM	ESOP8
JW5121	1	4.5~65	2	0.8	130	100~2000	Y	Internal	PFM	N	PCM	ESOP8
JWH5123	1	4.5~65	3.5	0.8	180	100~2000	Y	Adjustable	PFM	N	PCM	DFN4x4-10
JWH5123CH	1	4.8~60	3.5	0.8	85	100~2000	N	Internal	PFM	N	PCM	ESOP8
JWH5123S	1	4.5~65	3.5	0.75	180	100~2000	N	Adjustable	PFM	N	PCM	ESOP8
JWH5123P	1	4.5~65	3.5	0.75	180	100~2000	Y	Internal	PFM	N	PCM	ESOP8
JWH5125	1	4.8~65	5	0.8	180	100~2000	Y	Adjustable	PFM	N	PCM	DFN4x4-10
JWH5125S	1	4.5~65	5	0.75	180	100~2000	N	Adjustable	PFM	Y	PCM	ESOP8
JWH5125C	1	4.5~65	5	0.8	180	100~2000	N	Internal	PFM	N	PCM	ESOP8
JWH5125CH	1	4.8~60	5	0.8	85	100~2000	N	Internal	PFM	N	PCM	ESOP8
JWH5140	1	6~100	0.6	1.225	100	100~1000	N	Internal	PFM	Y	COT	DFN4x4-8 / ESOP8
JWH5140F	1	6~100	0.6	1.225	100	100~1000	N	Internal	FCCM	Y	COT	DFN4x4-8 / ESOP8
JWH5141	1	6~100	1	1.225	100	100~1000	N	Internal	PFM	Y	COT	ESOP8
JWH5141F	1	6~100	1	1.225	100	100~1000	N	Internal	FCCM	Y	COT	ESOP8
JW5142	1	6~100	1.5/2.5	1.225	20	300	N	Internal	PFM	N	COT	ESOP8
JW5142P	1	6~100	1.5/2.5	1.225	20	100~600	Y	Internal	PFM	N	COT	ESOP8
JW5143	1	6~100	1.5/3.5	1.225	20	300	N	Internal	PFM	N	COT	ESOP8
JW5143P	1	6~100	1.5/3.5	1.225	20	100~600	Y	Internal	PFM	N	COT	ESOP8

Step-up Converter

P/N	Regulated Outputs	V _{IN} (V)	V _{OUT} (V)	V _{SUB} (V)	Max.Switch Current (A)	I _Q (uA)	V _{FB} (V)	F _{SW} (kHz)	Type	Package
JW5522	1	0.7~5.5	2.2~5.5	-	3.6	35	0.6	1000	Sync. Converter	SOT563
JW5702	1	0.9~4.5	1.8~5.5	-	0.7	0.4	1	no fixed	Sync. Converter	CSP1.23x0.88-6/DFN2x2-6 /SOT563
JW5520S	1	1.2~5	2.5~5.5	-	9	30	1.2	600	Sync. Converter	QFN2X2-14
JW5701A	2	1.2~5.5	3.3	3(LDO)	0.5	0.7	-	no fixed	Sync. Converter+LDO	DFN1.5x1.5-6
JW5701B	2	1.2~5.5	3.3	2.8(LDO)	0.5	0.7	-	no fixed	Sync. Converter+LDO	DFN1.5x1.5-6
JW5701E	2	1.2~5.5	3	ON(Load Switch)	0.5	0.7	-	no fixed	Sync. Converter+Load Switch	DFN1.5x1.5-6
JW5701F	2	1.2~5.5	3.3	ON(Load Switch)	0.5	0.7	-	no fixed	Sync. Converter+Load Switch	DFN1.5x1.5-6
JW5701G	2	1.2~5.5	5	ON(Load Switch)	0.5	0.7	-	no fixed	Sync. Converter+Load Switch	DFN1.5x1.5-6
JW5520SA	1	1.2~5.5	2.5~5.5	-	9	30	1.2	600	Sync. Converter	QFN2X2-14
JW5523	1	1.2~5	2.5~5.5	-	9	25.8	1.23	640	Sync. Converter	UDFN2x2-7
JW5513	1	2.6~20	up to 20	-	15	70	1	300~2000	Sync. Converter	QFN3X3-20
JWH5513	1	2.8~20	up to 20	-	15	80	1	400~2000	Sync. Converter	QFN3X3-20
*JW5510	1	3~20	4~20	-	10	65	0.9	400	Sync. Converter	QFN3X4-15
JW5703C	2	1.2~5.5	3.3	1.8(LDO)	0.5	0.7	-	no fixed	Sync. Converter+LDO	DFN1.5x1.5-6
JW5535	1	3~18	up to 38	-	1.2	248	1.23	1180	Non-Sync. Converter	DFN2x2-6

Buck-Boost

P/N	V _{IN} (V)	V _{OUT} (V)	I _Q (uA)	F _{SW} (kHz)	V _{FB} (V)	Current Limit (A)	Interface	Integrated FET	Package
JW3651	3~21	0.9~20	50	450	0.9	3	No	Yes	QFN3X4-15
JW3701	3~36	2.4~36	30	300~500	1.2	13	I2C	No	QFN4X4-24
JW3702	3~24	2.4~24	30	300~500	1.2	13	I2C	No	QFN4X4-32
JW3703	3~36	2.4~36	30	300~500	1.2	13	I2C	No	QFN4X4-32
JW3760	5~60	1.2~60	3500	180~400	1.2	40	No	No	QFN5X5-32

*Contact JouWatt for New Designs

Controller

P/N	Topology	V _{IN} (V)	V _{OUT} (V)	V _{FB} (V)	F _{SW} (kHz)	I _Q (uA)	Features	Package
JWH6344A	Buck	6~65	0.8~Dmax · V _{IN}	0.8	100~1000	600	Light Load Selectable(PFM/FCC)	QFN3.5X4.5-20
JWH6346A	Buck	6~100	0.8~Dmax · V _{IN}	0.8	100~1000	600	Light Load Selectable(PFM/FCC) MOSFET Gate Driver Voltage Selectable(7.5V/10V)	QFN3.5X4.5-20
JW3760	Buck-boost	1.2-60	1.2~60	1.2	180~400	3500	60V 4-Switch Buck-boost Controller	QFN5X5-32
JWH5583	Boost	3-50	External	1.275	100~1000	1.5	Current mode PWM controller	MSOP10

Isolated DC/DC

P/N	V _{IN} (V)	Topology	Max Power (W)	R _{DS(ON)} (Ω)	F _{MAX} (kHz)	Soft Sart	Features	Package
JW3510	3~42	Flyback	6	0.5	430	Internal	Opto-Free, EN control	SOT23-5
JW3520	3~6	Push-Pull	1	0.6	400	Internal	Push-Pull Transformer Driver	SOT23-5/6
JWH3515	17~75	Flyback	6	2.1	1MHz	Internal	Internal Error Amplifier, Integrated 200V Power Switch Circuit, Startup Circuit	QFN4x4-8 /SOP8/MSOP8
JWH3516	17~75	Flyback	20	0.7	1.5MHz	Internal	Internal Error Amplifier, Integrated 200V Power Switch Circuit, Startup Circuit	DFN5x6-8
JWH3530	18~75	Active Clamp Forward	300	External	External Setting	Programmable	Support Voltage Mode, Current Mode	QFN4x4-24
JWH5581	9~30	Boost, Flyback	External	External	500	Programmable	Current mode PWM controller	SOIC8

Power Module

P/N	Function	V _{IN} (V)	I _{OUT} (A)	V _{FB} (V)	I _Q (uA)	F _{SW} (kHz)	Power Good	Soft Start	Light Load	Isolated	Package
JWM9102	Step-down	2.9~6	2	0.6	850	2000	Y	Internal	FCCM	N	QFN2.5x3.5x1.6
JWM9103A	Step-down	2.9~6	3	0.6	850	2000	Y	Internal	FCCM	N	QFN2.5x3.5x1.6
JWM9123EC	Step-down	2.9~6	3	0.6	850	2000	Y	Internal	FCCM	N	LGA2x2.5x1.1
JWM9203CL	Step-down	4.5~18	3	0.8	150	1200	N	Internal	PFM	N	LGA3x2.8x1.48
JWM9203FCL	Step-down	4.5~18	3	0.8	150	1200	N	Internal	FCCM	N	LGA3x2.8x1.48
JWM9106EC	Step-down	2.9~6	6	0.6	300	1200	Y	External	FCCM	N	LGA3x3x1.48
JWM9220	Step-down	3~14	20	0.6	3700	1000	Y	External	FCCM	N	LGA11x11x5-20
JWQM93902	Step-down	4~36	2	0.8	45	2100	Y	Internal	PSM	N	QFN4x5x2-21
JWQM93902F	Step-down	4~36	2	0.8	45	2100	Y	Internal	FCCM	N	QFN4x5x2-21
JWM9215AEC	Step-down	4~16	15	0.6	550	1000	Y	External	FCCM	N	LGA5x5x2.5-32
JWM9103EC	Step-down	2.9~6	3	0.6	850	2000	Y	Internal	FCCM	N	LGA2.5x2.5x1.1
JWM9102EC	Step-down	2.9~6	2	0.6	850	2000	Y	Internal	FCCM	N	LGA2.5x2.5x1.1
JWM9101EC	Step-down	2.9~6	1	0.6	850	2000	Y	Internal	FCCM	N	LGA2.5x2.5x1.1

LNB Power Supply

P/N	Protocol	V _{IN} (V)	I _{OUT} (A)	V _{OUT} (V)	Programmable Current Limit	22kHz Tone Signal	Cable Compensation	Package
JW4008	DiSEqC 1.x	7~14	>0.5	14.2/19.4	-	External	N	ESOP-8
JW4008B	DiSEqC 1.x	7~14	>0.5	13.5/18	-	External	N	ESOP-8

DC Input Lighting Product

P/N	V _{IN} (V)	Topology	Switch Current Limit	Frequency	Dimming	Sync	Package
JW1120	4.5~20	Buck	1.7A (Max Duty)	1MHz	PWM / Analog	Y	TSOT23-6
JW1123	4.5~28	Buck	2A	600KHz	PWM	Y	SOT23-6
JW1125	4.5~28	Buck	2A	1MHz	PWM	Y	SOT23-6
JW1130H	4.5~40	Buck / Boost / Buck-Boost	2A peak	Constant 2us toff	PWM / Analog	N	ESOP8 / SOT23-6
JW11A0	15~100	Buck	/	300KHz	N	N	ESOP8

LED Backlight Driver								
P/N	Number of Channels	Control Interface	Min Dimming Duty (%)	V _{IN} (V)	V _{out} (max) (V)	F _{SW} (kHz)	Max. Switch Current (A)	Package
JW1149H	4	PWM/SMBus	0.392	4.5~36	60	200 ~900	3.6	WDFN5X5-16
JW1160	1	PWM	0.20%	2.7~5.5	39	1200	1.5	SOT23-5 DFN2X2-6
JW1164	6	PWM	0.5	2.7~24	38	1000	2.8	WQFN3X3-16

LCD Power- Level Shift								
P/N	VGH Input Range	VGL Input Range	Number of Channels	Discharge channel	Tcon Input Mode	Over Current Protect	Charge Sharing	Package
JW1332A	17~42V	-3~18V	2 STV, 6 CLK	2	6 in 6out	Y	Y	WQFN4X4-28
JW1332B	17~42V	-3~18V	2 STV, 6 CLK, 2 LC	0	6 in 6out 2 in 6 out	Y	Y	WQFN4X4-32
JW1332C	17~42V	-3~18V	2 STV, 6 CLK, 2 LC	1	6 in 6out 2 in 6 out	Y	Y	WQFN4X4-32

LCD Power - PMIC									
P/N	Input Range	AVDD	AVEE	VGH	VGL	VCOM	XAO	Others	Package
JW1360	2.5V~5.5V	+ 4~6V 80mA/220mA	- 4~6V 80mA/220mA	NC	NC	NC	NC	NC	WLCSP 1.40X2.03-15L
JW1386	2.5V~5.5V	Boost converter 20V, 3A, NMOS	NC	Charge Pump	Charge Pump	1 ch	Open Drain	Gate Pulse Modulation	WQFN4X4-24

Automotive--LED Backlight Driver								
P/N	Number of Channels	Control Interface	Min Dimming Duty (%)	V _{IN} (V)	V _{out} (max) (V)	F _{SW} (kHz)	Max. Switch Current (A)	Package
JWQ1149	4	PWM/SMBus	0.392	4.5~36	60	200 ~900	3.6	WDFN5X5-16

PMU				
P/N	Application	Supply Voltage (V)	Regulated Output (#)	Package
JWH7560	Solar inverter, PV optimizer, Industry system	8~150	3	WQFN5*5-24L

Vcore Power

JoulWatt has complete Vcore Power solutions including Multi-phase controller and Power Stage that can provide high current to various xPU.

Dual-Loop, Multi-Phase Controller with PMBus Interface

Key Features

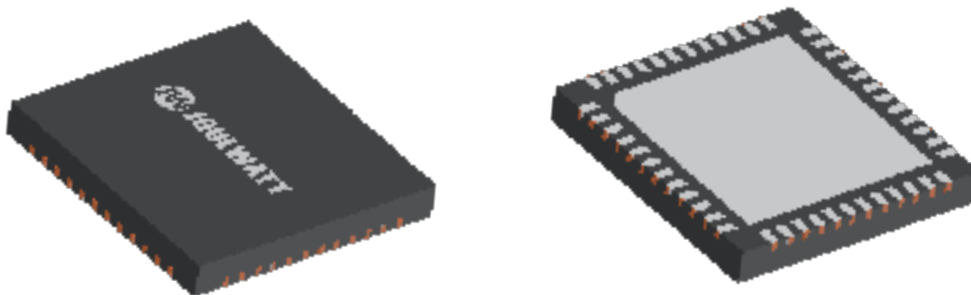
- Up to 12-phase, Dual-output Controller
- PMBus/I2C and Compliant
- Built-In NVM to Store Custom Configurations
- Compatible with DrMOS by Multiple Vendors
- Programmable Loop Compensation
- Flexible Phase Assignment for Dual Rails
- Phase-to-phase Active Current Balancing with Configurable Offset for Thermal Balance
- Vin UVLO/OVP, Vout UVP/OVP/OCV, OTP with Options of No Action, Latch, Retry or Hiccup
- PMBus System Interface for Telemetry of Voltage, Current, Power, Temperature and Fault Conditions

Application Fields

- Telecom and Networking Systems
- XPU core power supply

Benefits

- Fast Transient Response
- Configurable Load Line with High Precision
- Multiple Telemetry and Reporting Mechanism
- Flexible Phase Assignment for Dual Rails
- Fault Automatic recording to the NVM



QFN(6mmx6mm)-48 Package

Multi-phase Controller								
P/N	Rail Number	Phase Number	Min Input Voltage(V)	Max Input Voltage(V)	Min Fsw(kHz)	Max Fsw(kHz)	Interface	Pacakge
JWH6374	2	8	3.15	3.6	10	1000	PMBus/I2C	QFN5x5-40
JWH6375	2	8	3.15	3.6	10	1000	VR14/13.HC/13	QFN5x5-40
JWH6396	2	6	3.15	3.6	10	1000	IMVP9.1/9	QFN6x6-48
JWH6377	2	12	3.15	3.6	10	1000	PMBus/I2C	QFN6x6-48

DrMOS							
P/N	Min Input Voltage(V)	Max Input Voltage(V)	Typical Current Limit(A)	Min Fsw(kHz)	Max Fsw (kHz)	PWM Logic Voltage(V)	Package
JWH7060	3	16	75	100	1000	3.3	LGA5X6-41
JWH7067	3	16	75	100	1500	3.3	TLGA5x6-41
JWH7030	4.5	22	60	100	1500	3.3	QFN3x5-21
JWH7069	3	16	110	300	1500	3.3	TLGA5x6-41

AC/DC Power Supply

JoulWatt offers rich high-performance products to solve the control of multi-type topologies on the primary side and meet the requirements of synchronous rectification on the secondary side. From traditional silicon power control solutions to corresponding solutions for third-generation semiconductors, JoulWatt helps engineers to develop power supply products with high efficiency, high power density and high performance.



AC/DC Synchronous Rectifier						
P/N	Breakdown Voltage (V)	R _{DS(ON)} (mΩ)	V _{OUT} (V)	Output Current (A)	Supported Operation Mode	Package
JW7700A8	40	15	5	2.4	CCM, CrCM, DCM, QR	SOP8
JW7703D8	40	6.3	5	3	CCM, CrCM, DCM, QR	SOP8
JW77284C	45	16	5	3	CCM, CrCM, DCM, QR	ESOP8
JW77284D	45	12	5	3	CCM, CrCM, DCM, QR	ESOP8
JW77284E	45	6.3	5	4	CCM, CrCM, DCM, QR	ESOP8
JW7728H6B	60	13	3~12	3	CCM, CrCM, DCM, QR	ESOP8
JW7728H6C	60	11	3~12	3	CCM, CrCM, DCM, QR	ESOP8/SOP8
JW7728H6D	60	8.5	3~12	3	CCM, CrCM, DCM, QR	ESOP8
JW77216	60	10	3~12	3	CCM, CrCM, DCM, QR	SOP8
JW77218	80	10	3~15	3	CCM, CrCM, DCM, QR	SOP8
JW77218B	85	20	3~15	2	CCM, CrCM, DCM, QR	SOP8
JW77218C	85	15	3~15	2.4	CCM, CrCM, DCM, QR	SOP8
JW7721AH	100	10	3~20	3	CCM, CrCM, DCM, QR	SOP8
JW7726AC	100	15	3~20	2.4	CCM, CrCM, DCM, QR	SOP8
JW7726AD	100	10	3~20	3	CCM, CrCM, DCM, QR	SOP8
JW7726HAD	100	10	3~20	3	CCM, CrCM, DCM, QR	PDFN5x6
JW7726HAEC	100	7.8	3~20	3.25	CCM, CrCM, DCM, QR	PDFN5x6
JW7726HAE	100	6	3~20	4	CCM, CrCM, DCM, QR	PDFN5x6
JW7726BL	150	External	3~20	-	CCM, CrCM, DCM, QR,ACF	SOT23-6
JW7726BH	150	External	3~20	-	High Frequency; CCM, CrCM, DCM, QR,ACF	SOT23-6
JW7726H	150	External	3~20	-	CCM, CrCM, DCM, QR,ACF,AHB	SOT23-6

AC/DC Flyback PWM IC									
P/N	Max Power (W)	PSR/SSR	Type	MOSFET Rating (V)	R _{DS(ON)} (Ω)	F _{MAX} (kHz)	Standby Power (mW)	Features	Package
JW1520AH	12	PSR	QR	650	4.8	85	<75	CC/CV:±5%	SOP8
JW1520D-C266	18	PSR	QR	670	2.5	85	<75	CC/CV:±5%	SOP8
JW1518HCD	20	SSR	Fixed Frequency	800, Si	3.95(max)	100	<75	-	DIP7
JW1518MA	10	SSR	Fixed Frequency	1000, Si	10(typ)	60	75	-	DIP7
JW1510PA	18	SSR	Fixed Frequency	1200, Si	6(typ)	65	<75	-	DIP7
JW1566A	45	SSR	QR	650, GaN	0.365(typ)	170	<75	-	DFN5x6-7
JW1565J	120	SSR	QR	700, GaN	0.165(typ)	170	<75	-	DFN6x8
JW1515HA	150	SSR	QR	External GaN	External GaN	170	<75	-	SSOP10
JW15158AS	20W(High line input)	SSR	QR	700, GaN	1.6(typ)	110	<75	-	HSOP-7
JW15198A	20W	SSR	QR	700, GaN	1.6(typ)	108	<75	-	HSOP-7
JW15158B	20W	SSR	QR	700, GaN	1.0(typ)	110	<75	-	HSOP-7
JW15158D	33W	SSR	QR	700, GaN	0.47(typ)	110	<75	-	HSOP-7
JW15158K	160W(High line input)	SSR	QR	700, GaN	0.165(typ)	170	<75	-	ESOP10
JW15158I	100W(High line input)	SSR	QR	700, GaN	0.365(typ)	170	<75	-	ESOP10
JW15156F	50	SSR	QR	700, GaN	0.27(typ)	120	<75	-	PDFN5x6
JW15156E	40	SSR	QR	700, GaN	0.365(typ)	120	<75	-	PDFN5x6
JW15156D	33	SSR	QR	700, GaN	0.47(typ)	120	<75	-	PDFN5x6
JW1518L	150	SSR	Fixed Frequency	External	External	65	<75	-	SOT23-6
JW1516	150	SSR	QR	External	External	130	<75	-	SSOP10
JW1516A	150	SSR	QR (without X CAP Discharge)	External	External	130	<75	-	SSOP10

AC/DC Flyback PWM IC									
P/N	Max Power (W)	PSR/SSR	Type	MOSFET Rating (V)	R _{DS(on)} (Ω)	F _{MAX} (kHz)	Standby Power (mW)	Features	Package
JW1519B	100	SSR	QR	External	External	100	<75	-	SOT23-6
JW1519AP	100	SSR	QR(with peak load)	External	External	85	<75	-	SOT23-6
JW1550	200	SSR	ACF	External	External	External Setting	<75	-	QFN4x4-20
JW1556	300	SSR	AHB	External	External	External Setting	<75	Protection: Auto-recovery	QFN4x4-20
JW1556B	300	SSR	AHB	External	External	External Setting	<75	Protection:Latch	QFN4x4-20
JW1556C	300	SSR	AHB	External	External	External Setting	<75	Protection: Auto-recovery	QFN4x4-20
JW1520LF	24	PSR	QR	670, Si	1.3(max)	85	<75	CC/CV:±5%	ESOP-6
JW1520LG	30	PSR	QR	650, Si	1(max)	85	<75	CC/CV:±5%	ESOP-6
JW1520LH	36	PSR	QR	670, Si	0.62(max)	85	<75	CC/CV:±5%	ESOP-6
JWH1503	150	PSR	QR	External	External		<75		SOP8

AC/DC Half Bridge IC								
P/N	Max Power (W)	Type	MOSFET Rating (V)	R _{DS(on)} (Ω)	F _{MAX} (kHz)	VCC Quiescent Current(mA)	Application	Package
JW1568K	180	Half Bridge Driver with GaN	650, GaN	0.22(typ)	2000	0.15	AHB,ACF,LLC and other Half/Full Bridge Application	DFN6x8

AC/DC Special IC						
P/N	Device	Breakdown Voltage(V)	Source Current @Vcc=10V	Function	Vcc Voltage(V)	Package
JW7921	N-JFET	600	4mA	0.5S Shut-down	27	SOT23-3
JW7920	N-JFET	600	4mA	High Efficiency Charging	14.5	SOT23-3

Sinle Live Line IC						
P/N	Breakdown Voltage(V)	R _{DS(on)} (Ω)	Maxmum Power(W)	I _Q (uA) max	V _{OUT} (V)	Package
JW1539A	25	0.008	800	40	12	TO252-2
JW1539O	25	External	2000	40	12	SOP8

PFC Constant Voltage Controllers and Regulators									
P/N	HV-JFET	R _{DS(on)} (Ω)	Breakdown Voltage(V)	Power (175-264Vac)	Power (90-264Vac)	COMP	2nD OVP	Operation Mode	Package
JW1571	N	External	External	400W	300W	Internal	Y	CRM+DCM	SOP8
JW1572	N	External	External	400W	300W	External	Y	CRM+DCM	SOP8
JW1962O	N	External	External	300W	250W	Internal	Y	CRM+DCM	SOP8
JW1962H	Y	External	External	300W	250W	Internal	Y	CRM+DCM	SOP8
JW1962G	N	External	External	300W	250W	Internal	Y	CRM+DCM	SOP8
JW1962DG	N	0.47	700	400V/350mA	400V/175mA	Internal	N	CRM+DCM	ESOP7
JW1962EG	N	0.365	700	400V/410mA	400V/200mA	Internal	N	CRM+DCM	ESOP7
JW1962FG	N	0.27	700	400V/435mA	400V/210mA	Internal	N	CRM+DCM	ESOP7
JW1962GG	N	0.165	700	400V/450mA	400V/225mA	Internal	N	CRM+DCM	ESOP7
JW1962IG	N	0.35	700	400V/580mA	400V/280mA	Internal	Y	CRM+DCM	ESOP10
JW1962JG	N	0.27	700	400V/600mA	400V/300mA	Internal	Y	CRM+DCM	ESOP10
JW1962KG	N	0.165	700	400V/750mA	400V/350mA	Internal	Y	CRM+DCM	ESOP10
JW1962AH	Y	2.8	500	420V/120mA	420V/60mA	Internal	N	CRM+DCM	SOP8
JW1962BH	Y	1.8	500	420V/160mA	420V/80mA	Internal	N	CRM+DCM	SOP8
JW1964B	Y	5.5	500	420V/90mA	420V/40mA	Internal	N	CRM+DCM	SOP8
JW1964C	Y	2.8	500	420V/120mA	420V/60mA	Internal	N	CRM+DCM	SOP8
JW1964D	Y	1.8	500	420V/160mA	420V/80mA	Internal	N	CRM+DCM	SOP8

Offline Buck Regulator							
P/N	Breadkdwon Voltage (V)	R _{DS(on)} (Ω)	I _{OUT} (mA)	V _{OUT} (V)	Frequency (kHz)	Standby Power (mW)	Package
JW1530	700	15	200	5	30	<30	SOT23-3
JW1532N5	650	30	150	5	40	<30	SOP8
JW1532M5	650	25	300	5	40	<30	SOP8
JW1532A5	650	10	450	5	40	<30	SOP8
JW1531O	External	External	2000	3~150	-	<150	SOP8
JW1531B	500	5	600	3~150	-	<75	SOP7
JW1531M	500	15	250	3~150	-	<50	SOP7
JWB1536NC	500	20	200	3.3	30	<30	ASOP7
JWB1536AC	500	17	300(450mA pulse)	3.3	30	<30	ASOP7
JW1536NC	500	20	200	3.3	30	<30	SOP7
JW1536AC	500	14	450	3.3	30	<30	SOP7
JW1532A	650	13	300	12/18	65	<30	SOP8
JW1532AL	500	10	300(600mA pulse)	12/18	65	<30	SOP8
JW1532B	650	5	450	12/18	65	<30	SOP8
JW1532BL	500	5	450(900mA pulse)	12/18	65	<30	SOP8
JW15326A	650	13	300	12	65	<30	SOP8
JW15326B	650	5	450	12	65	<30	SOP8
JW15327A	650	13	300	18	65	<30	SOP8
JW15327B	650	5	450	18	65	<30	SOP8
JW15328A	650	13	400	12	65	<30	DIP7
JW15328B	650	5	550	12	65	<30	DIP7
JW15328D	650	2	650	12	65	<30	DIP7
JW15325A	650	13	300	12/15	65	<30	SOP8
JW15325B	650	5	450	12/15	65	<30	SOP8
JW15329A	650	13	350	18	65	<30	DIP7
JW15329B	650	5	500	18	65	<30	DIP7
JW15329D	650	2	600	18	65	<30	DIP7
JW1538NC	650	22	150	5/12/18/<25	30	<5	SOP7
JW1538B	650	5	450	5/12/18/<25	65	<5	SOP7

Offline Buck Regulator BV<200V							
P/N	Breadkdwon Voltage (V)	R _{DS(on)} (Ω)	I _{OUT} (mA)	V _{OUT} (V)	Frequency (kHz)	Standby Power (mW)	Package
JW1532Y	150	0.5	500	15	65	<30	SOP8

Offline Linear Regulator							
P/N	Breadkdwon Voltage (V)	R _{DS(on)} (Ω)	I _{OUT} (mA)	V _{OUT} (V)	Standby Power (mW)	Features	Package
JW1581A	650	10	50	5/3.3	<30	Inductor-less	SOP8
JW1581A	650	10	50	5/3.3	<30	Inductor-less	SOP8
JW1581C	650	10	40	12/5	<30	Inductor-less and 12V Relay Driver	SOP8

Battery Management System

JoulWatt offers highly integrated, high-precision, and full-featured battery management products including charger ICs, battery protectors, battery monitoring products. JoulWatt assists engineers in completing peripheral simplification, safety, and reliability design solutions in a short period of time.

Protector for 1-Cell Battery Pack

Key Features

- Over Voltage Protection Accuracy@ $\pm 15\text{mV}$
- Under Voltage Protection Accuracy@ $\pm 30\text{mV}$
- Charge/Discharge Over-current Protection
- Accuracy@ $\pm 1\text{mV}$
- 2nd Discharge Over-current Protection
- Accuracy@ $\pm 2\text{mV}$
- Load Short-circuit Protection Accuracy@ $\pm 4\text{mV}$
- Low Current Consumption ($T_A=25^\circ\text{C}$)

Normal Mode: $3.0\mu\text{A}$ Max. Power-down Mode: 50nA Max.
Over-discharge Mode: $0.5\mu\text{A}$ Max.

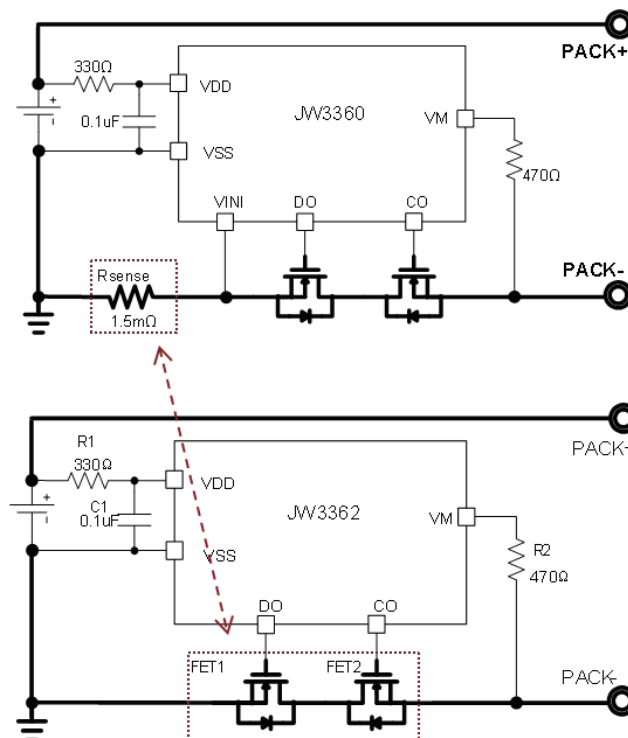
- Package: X2DFN1.57*1.9-6L/X2DFN1.2*1.2-6

Application Fields



Benefits

- Current detection resistor: $0.5\text{ m}\Omega$ @Min



Protector and Monitor IC for 6-13 Cells Battery Pack

Key Features

- Voltage Sampling Accuracy@ $\pm 5\text{mV}$ Typ.
- Under/Over Voltage Protection Accuracy@ $\pm 15\text{mV}$
- Charge/Discharge Over-current Protection
- Battery Under/Over-temperature Protection
- Passive Balance Function
- I2C Communication and Standalone
- Open Wire Detection
- Low Current Consumption ($T_A=25^\circ\text{C}$)

Normal Mode: $35\mu\text{A}$ Max. Sleep Mode: $4\mu\text{A}$ Max

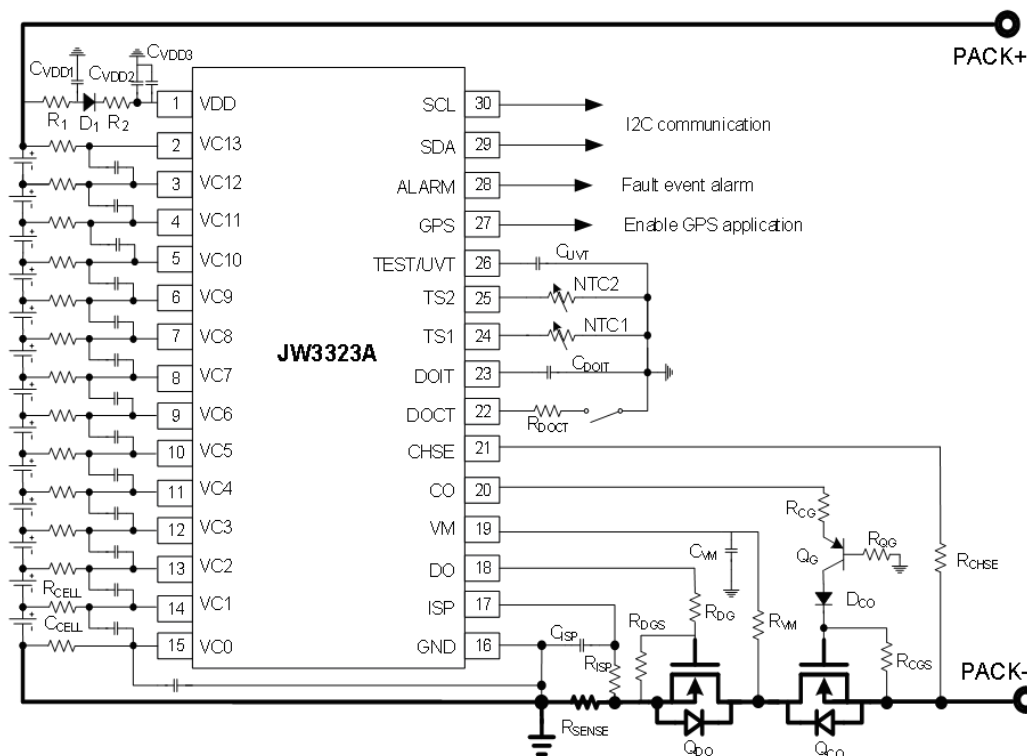
- Package: TSSOP30

Application Fields



Benefits

- OTP for avoiding inactive stock



Protector for 6/7Cells Battery Pack

Key Features

- Over Voltage Protection Accuracy@ $\pm 15\text{mV}$
- Under Voltage Protection Accuracy@ $\pm 20\text{mV}$
- Battery Under/Over-temperature Protection
- Charge/Discharge Over-current Protection
- Open Wire Detection
- Passive Balancing Function
- Charging Permission (CP) Condition Check
- Low current consumption

Normal Mode: $25\mu\text{A}$ Max. Sleep mode: $5\mu\text{A}$ Max.

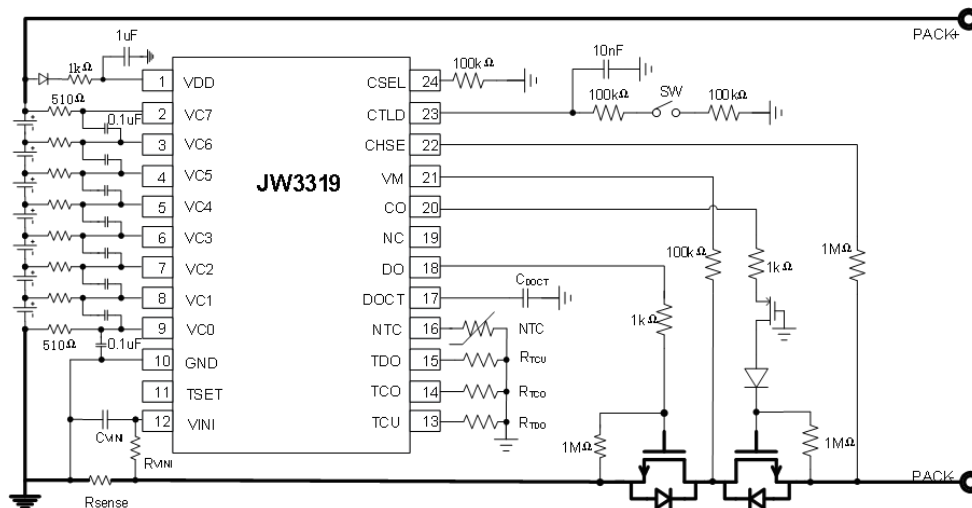
- Package: TSSOP24

Application Fields



Benefits

- High precision voltage and current detection
- Passive balancing function
- PWM control MOSFET



Monitor for 4-10 Cells Battery Pack

Key Features

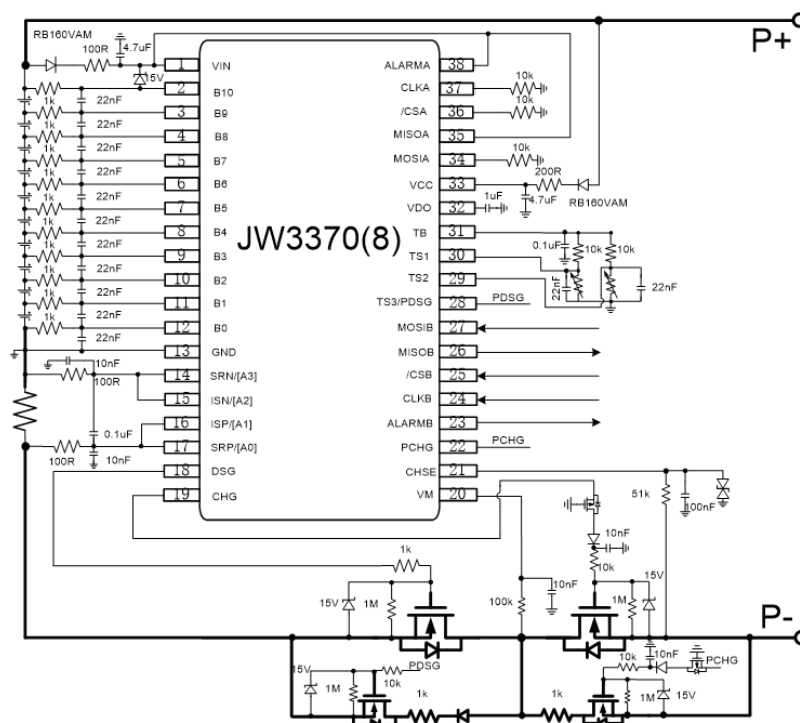
- JW33708 Especially for 4-8 Cells Battery Pack
- 14-BIT $\Delta\Sigma$ ADC samples battery voltage and temperature
- 16-BIT $\Delta\Sigma$ ADC senses charge/discharge current.
- Support passive cell balance
- Reliable SPI communication and support cascade
- Comprehensive protection
- 3.3V-80mA LDO output for external MCU
- Open wire connection detection
- Low current consumption
Sleep state: 20 μ A Max. Ship state: 5 μ A Max.
- Package: TSSOP38

Application Fields



Benefits

- One Die Process
- Cascadable



JW3363

Hero Products

1s Protector (for Steel Cell)

Key Features

- High Side N Channel FET Drive;
- Charge Over-current Detection;
- Discharge Over-current Detection in 3-step;
- 0V Battery Charge Function;
- Power-down Function Optional;
- Over-discharge Latch Function Optional;
- Package : CSP1.66*1.08*0.36-8
- Low Current Consumption (TA=25°C)

Operation Mode: 6μA@Typ./9μA@Max.

Over-discharge Mode: 6μA@Typ./9μA@Max.

Power-down Mode: 150nA@Max.

Application Fields



Benefits

- Safety: High side NMOS Drive
- CTL Fuction
Over-discharge Detection Voltage
Optional: VOD1/VOD2;
Power-down Function Entry and Exit;
CO&DO Turn-off Function;

JW3421

ECC Anti-Fake IC

Key Features

- 256 bits Elliptic Curve Cryptography (ECC) Engine
- Private Digital Certificate
- Host Challenge by Software(Host → Slave)
- Security Library Concept for easy host side integration
- 96 bits Unique Chip Identification number
- 160 bytes protected Secure NVM read-only space
- 304 bytes lock protects User NVM memory
- Self-adaption 1-Wire Interface
- Package: TSNP-6-9

Application Fields



Benefits

- Large User Space: 304 byte
- Security Algorithms: ECC 256

2nd Protector for 2-4 Cells Battery Pack

Key Features

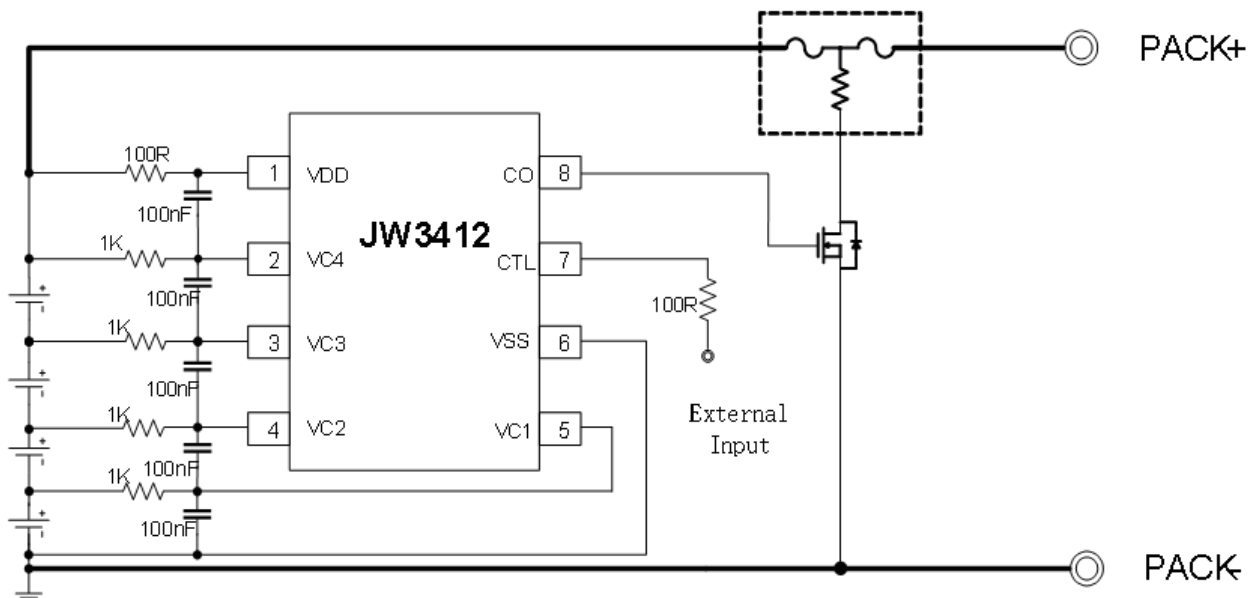
- Over Voltage Protection Accuracy@ $\pm 15\text{mV}$
- CO Output Mode: CMOS Active High
- Timer Reset Delay Time
- Output Control Function via CTL Pin
- Input Voltage is High to 28V
- Low Current Consumption ($T_A=25^\circ\text{C}$)
Normal Mode: $2\mu\text{A}$ Max.
- Package : UDFN1.97*2.46-8

Application Fields



Benefits

- Compatible with Major Gauge IC



WLCSP-36, I2C Controlled Single Cell Dual Phase Switched Capacitor Charger

Key Features

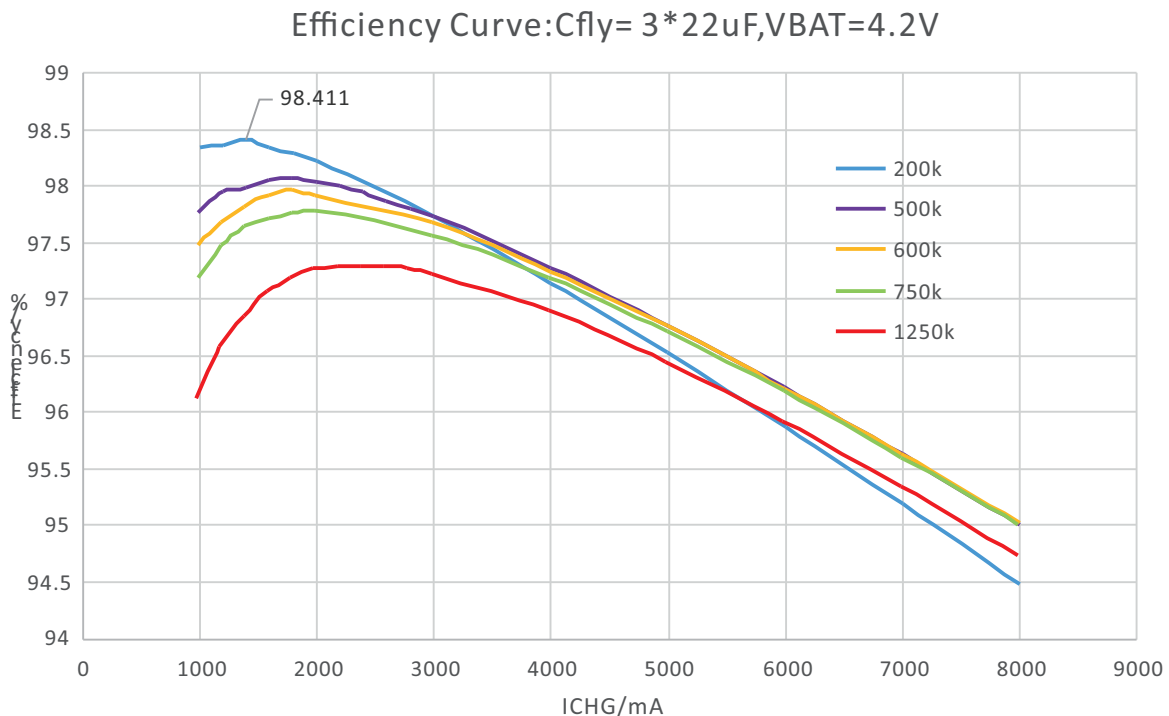
- Two Operation Mode: Switched-cap Mode、Bypass Mode
- Fast Response Time (<200ns) of AC Over-voltage Protection to Turn Off the External MOSFET
- Integrated Dual Phase Switched Capacitor Converter with Low On Resistance
- Charge current up to 8A, efficiency up to 98.4%@1.4A&200k
- Multiple Protections: VBUS_OVP、VAC_OVP、VBAT_OVP、VOUT_OVP、IBUS_OCP、IBAT_OCP、TDIE_OTP
- Multiple Charge Protections: VBUS_IN_RANGE、VDROP_OVP、VBAT/IBAT_REGULATION、VOUT_SCP、IBUS_RCP、IBUS_UCP
- Protocol: UFCS

Application Fields

- Smart-phone
- Tablet PC

Benefits

- Ultra-high Efficiency
- High Accuracy 12-bit ADC



BMS Special IC						
P/N	Function Description	Channel	Operation Voltage	I _Q	Package	Application Description
JW3330	High-side NMOS driver	4	6~90V	12.5uA	TSSOP16/SOP8	High-Side NMOS Driver in BMS
JW3332	Ideal diode for BMS	1	10~150V	1.1mA	SOP8	Schottky Diode Replacement in Charging Circuit
JWS22251	8:1 Mux/DeMux Bus Switch	/	5~5.5V	0.1uA	SSOP16	I/O Expansion
JW3421	ECC Anti-Fake IC	/	1.62~5V	1.5uA	PG-TSNP-6-9	Battery Pack Encryption Application

BMS Protection IC								
P/N	Protection Level	Cell NO.	Operation Voltage	Balance Function	Cascade Function	Battery Type	Package	Application Description
JW3360-XXX	1	1	1.5~6V	N	N	Lithium Battery	X2DFN1.57*1.9-6L	Mobile Phone Battery and Single Lithium Battery
JW3362-XXX	1	1	1.5~6V	N	N	Lithium Battery	X2DFN1.2*1.2-6	Wearable Battery and Single Lithium Battery
JW3363-XXX	1	1	1.5~6V	N	N	Lithium Battery	CSP1.66*1.08*0.36-8	Steel Shell Lithium Battery
JW3365-XXX	1	1	1.5~6V	N	N	Lithium Battery	X2DFN1.57*1.9-6L	Mobile Phone Battery and Single Lithium Battery
JW3412-XXX	2	2~4	3.5~28V	N	N	Lithium Battery	UDFN1.97*2.46-8	Laptop
JW3410-XXX	2	2~5	3~25V	N	N	Lithium Battery	MSOP8	Power Tools, Electric Bikes
JW3313-XXX	1	3	3~25V	N	N	Lithium Battery	MSOP10	Electric Toy
JW3313S-XXX	1	3	3~25V	N	N	Lithium Battery	SOP8	Power Tool
JW3312-XXX	1	3~5	3~35V	Y	N	Lithium Battery	TSSOP20	Backup Power. Lead to Lithium
JW3318-XXX	1	3~5	3~35V	Y	Y	Lithium Battery	TSSOP20	Electric Bike, Backup Power
JW3345-XXX	1	3~5	3~35V	N	N	Lithium Battery	SOP16	Power Tool
JW3317-XXX	1	5~7	6~60V	N	Y	Lithium Battery	TSSOP24	Electric Bike, Scooter
JW3319-XXX	1	6~7	6~40V	Y	N	Lithium Battery	TSSOP24	Electric Bike, Scooter
JW3311-XXX	1	8~10	6~60V	N	Y	Lithium Battery	TSSOP24	Electric Bike, Scooter

Analog Front-End							
P/N	Min Cells	Max Cells	Operation Voltage	Operating Temperature Range	Communication Interface	Support Cascade	Package
JW3370	4	10	8-60	-40 to 85	SPI	Y	TSSOP38
JW33708	4	8	8-60	-40 to 85	SPI	N	TSSOP38
JW3376	8	16	16-120	-40 to 85	SPI	N	TSSOP48
JW3323A	6	13	6~65	-40 to 85	I2C	N	TSSOP30

Charger										
P/N	Battery Cells	Control Topology	Charge Current (A)	Operation V_{IN-MAX} (V)	Absolute V_{IN} (V)	Battery Voltage	OTG Function	Battery Type	Control Interface	Package
JW3663	1	Linear	0.456	5.5	21	4.2	N	Li-Ion, Li-Polymer	I2C	WLCSP-9 (1.75x1.75)
JW4054	1	Linear	0.5	7.5	18	4.2	N	Li-Ion, Li-Polymer	Stand-alone	SOT23-5
JW4054A	1	Linear	0.5	7.5	18	4.35	N	Li-Ion, Li-Polymer	Stand-alone	SOT23-5
JW3665	1	Linear	1	7.5	18	4.2	N	Li-Ion, Li-Polymer	Stand-alone	DFN2x2-8
JW3665A	1	Linear	1	7.5	18	4.35	N	Li-Ion, Li-Polymer	Stand-alone	DFN2x2-8
JW3665B	1	Linear	1	7.5	18	4.33	N	Li-Ion, Li-Polymer	Stand-alone	DFN2x2-8
JW4056	1	Linear	1	7.5	18	4.2	N	Li-Ion, Li-Polymer	Stand-alone	ESOP-8
JW4056A	1	Linear	1	7.5	18	4.35	N	Li-Ion, Li-Polymer	Stand-alone	ESOP-8
JW3655E	1~4	Buck-boost	3	21	24	3~21	N	Li-Ion, Li-Polymer, Li-FePO4	Stand-alone	QFN3x4-15
JW3702	2~4	Buck-boost	12.75 (Rcs=10mΩ)	24	28	0~24	Y	Li-ion, Li-polymer, Li-FePO4	I2C	QFN4X4-32
JW3703	2~8	Buck-boost	12.75 (Rcs=10mΩ)	24	40	0~36	Y	Li-ion, Li-polymer, Li-FePO4	I2C	QFN4X4-32
JW3902	2~3	Boost	2.5	5.5	20	8.15~13.05	N	Li-Ion, Li-Polymer	I2C	QFN4X4-24
JW3903	2~3	Boost	2.5	5.5	20	8.4~13.05	N	Li-Ion, Li-Polymer	Stand-alone	QFN4X4-24
JW3647	1	Switched-cap	8(switched-cap mode) 4(bypass mode)	18	5.5	2.8~5.5	N	Li-Ion, Li-Polymer	I2C	WLCSP-36

Linear Power Supply

JoulWatt has a comprehensive range of power switch products, including load switches used to control timing and slow start, USB current limit switches applied to USB ports, electronic fuses with powerful protection functions widely used in industry, hot-swap controllers, ORing and ideal diode controllers that can be flexibly applied and configured. Whether it is an input of 1V to 150V or an output of 100mA to hundreds A, we can provide you with power switch products that meet system requirements.

Load Switch

P/N	Channel	V _{IN} (V)	Max I _{OUT} (A)	I _Q (uA)	Soft Start	Enable	Fault Indicator	Programmable Current Limit	OCP	Package
JW7106	1	0.7~5.5	6	60	External	Active High	N	N	N	DFN2x2-8
JW7107S	2	0.7~5.5	6	80	External	Active High	N	N	N	DFN3x2-14
JW7113	1	2.7~5.5	2	80	Internal	Active High	Y	N	Y	SOT23-5
JW7124	1	0.7~5.7	5	50	External	Active High	N	N	N	DFN2x2-10

USB Switch

P/N	Channel	V _{IN} (V)	Max I _{OUT} (A)	I _Q (uA)	Soft Start	Enable	Fault Indicator	Programmable Current Limit	OCP	Package
JW7115S-1	1	2.7~5.5	1	80	Internal	Active High	Y	N	Y	SOT23-5
JW7115S-2	1	2.7~5.5	2	80	Internal	Active High	Y	N	Y	SOT23-5
JW7115SA-1	1	2.7~5.5	1	80	Internal	Active Low	Y	N	Y	SOT23-5
JW7115SA-2	1	2.7~5.5	2	80	Internal	Active Low	Y	N	Y	SOT23-5
JW7105B	1	2.7~5.5	3	100	Internal	Active High	N	Y	Y	TSOT23-5
JW7111S	1	2.7~5.5	2.2	100	Internal	Active High	Y	Y	Y	SOT23-6 / DFN2x2-6
JW7111SA	1	2.7~5.5	2.2	100	Internal	Active Low	Y	Y	Y	SOT23-6 / DFN2x2-6
JWH7103	1	2.7~5.5	1.7	100	Internal	Active High	Y	Y	Y	SOT23-6 / DFN2x2-6

eFuse, Hotswap, Protection

P/N	Function	Channel	FET	V _{IN} (V)	Max I _{OUT}	I _Q (mA)	Soft Start	OCP	Programmable Current Limit	OVP	Package
JW7122	eFuse	2	Internal	1.2~5.5	6	0.14	External	Y	N	N	DFN3x2-14
JW7118	eFuse, OVP	1	Internal	2.8~22	2.5	0.1	Internal	Y	N	Y	SOT23-6 / DFN3x2-8
JW7112	eFuse	1	Internal	2.8~16	3	0.15	Internal	Y	Y	N	SOT23-6
JWH7165M	eFuse	1	Internal	2.7~16	25	1	External	Y	Y	Y	QFN3x5-22
JWH7160	eFuse	1	Internal	4~16	50	1.8	External	Y	Y	Y	LGA5x5-32
JWH7160A	eFuse	1	Internal	4~16	50	1.8	External	Y	Y	Y	LGA5x5-32
JW7222	Hotswap	1	External	2.5~18	-	1	External	Y	Y	N	MSOP10
JW7221	Hotswap	1	External	9~80	-	0.51	External	Y	Y	Y	MSOP10
JW7221L	Hotswap	1	External	9~80	-	0.51	External	Y(latch)	Y	Y	MSOP10
JW7228	Protection	1	External	9~80	-	0.53	External	Y	Y	Y	SOP8
JW7228P	Protection	1	External	9~80	-	0.53	External	Y	Y	Y	MSOP10
JW7211	Hotswap,ORing	1	External	10~80	-	1.1	External	Y	Y	Y	TSSOP16
JWH71522H	eFuse,ORing	1	Internal	2.7~18	5	0.22	External	Y	Y	Y	WQFN3*4-20
JWH71522L	eFuse,ORing	1	Internal	2.7~18	5	0.22	External	Y	Y	Y	WQFN3*4-20
JWH71524H	eFuse,ORing	1	Internal	2.7~18	5	0.22	External	Y	Y	Y	WQFN3*4-20
JWH71524L	eFuse,ORing	1	Internal	2.7~18	5	0.22	External	Y	Y	Y	WQFN3*4-20
JW7158	Fast Protection	1	Internal	4.5~24V	3	0.15	Internal	Y	Y	N	WDFN2*2-6
JW7158A	Fast Protection	1	Internal	4.5~24V	3	0.15	Internal	Y	Y	N	WDFN2*2-6

ORing and Ideal Diode

P/N	Channel	FET	High-side/Low-side	V _{IN} (V)	I _Q	Features	Package
JW7201	2	External	High-side	6~80	360uA	Fault Indicator	DFN4x3-14 / SOP16
JW7202	2	External	Low-side	10~150	1.4mA	ORing	SOP8
JW7203	1	External	Low-side	10~150	1.1mA	ORing	SOP8
JW7211	1	External	Low-side	10~80	1.1mA	ORing+Hotswap	TSSOP16
JW7260	1	External	High-side	6~80	380uA	ORing	TSOT23-6
JW7265	1	External	High-side	6~60	295uA	ORing, EN Control, Low IQ	TSOT23-6

Reset									
P/N	Function	Channel	Supply Range (V)	I _Q (uA)	Reset Voltage Threshold(V)	Reset Voltage Accuracy	Time Delay (us)	Features	Package
JWH7302	Voltage Detector	2	3~16	20	0.6	±1.5%	Adjustable	Reset and Gate Driver Outputs	DFN3×3-10

LDO						
P/N	VIN (V)	I _{OUT} (mA)	I _Q (uA)	Output Options	Features	Package
JW7808-1.2	2.2~5.5	300	12	1.2V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-1.5	2.2~5.5	300	12	1.5V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-1.8	2.2~5.5	300	12	1.8V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-1.9	2.2~5.5	300	12	1.9V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4
JW7808-2.2	2.2~5.5	300	12	2.2V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4
JW7808-2.5	2.2~5.5	300	12	2.5V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-2.7	2.2~5.5	300	12	2.7V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4
JW7808-2.75	2.2~5.5	300	12	2.75V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4
JW7808-2.8	2.2~5.5	300	12	2.8V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-2.85	2.2~5.5	300	12	2.85V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-2.9	2.2~5.5	300	12	2.9V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-3.0	2.2~5.5	300	12	3.0V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-3.1	2.2~5.5	300	12	3.1V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-3.2	2.2~5.5	300	12	3.2V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-3.3	2.2~5.5	300	12	3.3V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7808-4.0	2.2~5.5	300	12	4.0V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4
JW7808-4.5	2.2~5.5	300	12	4.5V	Enable, OTP, OCP, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-1.2	2.2~5.5	300	12	1.2V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-1.5	2.2~5.5	300	12	1.5V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5
JW7806-1.8	2.2~5.5	300	12	1.8V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-1.9	2.2~5.5	300	12	1.9V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4
JW7806-2.2	2.2~5.5	300	12	2.2V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4
JW7806-2.5	2.2~5.5	300	12	2.5V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-2.7	2.2~5.5	300	12	2.7V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4
JW7806-2.75	2.2~5.5	300	12	2.75V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4
JW7806-2.8	2.2~5.5	300	12	2.8V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-2.85	2.2~5.5	300	12	2.85V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-2.9	2.2~5.5	300	12	2.9V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-3.0	2.2~5.5	300	12	3.0V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-3.1	2.2~5.5	300	12	3.1V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-3.2	2.2~5.5	300	12	3.2V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-3.3	2.2~5.5	300	12	3.3V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JW7806-4.0	2.2~5.5	300	12	4.0V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4
JW7806-4.5	2.2~5.5	300	12	4.5V	Enable, OTP, OCP, Low noise, High PSRR	X2DFN1x1-4,SOT23-5
JWH7821	2.2~5.5	1000	350	0.8~5V	Enable, OTP, OCP, Low noise, High PSRR	DFN3x3-8
JWH7821A	2.2~5.5	1000	350	0.8~5V	Enable, OTP, OCP, Low noise, High PSRR	DFN3x3-8
JWH7822	1.1~6.5	2000	5000	0.8~5.2V	Enable, OTP, OCP, Low noise, High PSRR	QFN2.3x3.5-20/QFN5x5-20
JWH7822A	1.1~6.5	2000	5000	0.8~5.2V	Enable, OTP, OCP, Low noise, High PSRR	QFN2.3x3.5-20/QFN5x5-20
JWH7823	1.1~6.5	3000	5000	0.8~5.2V	Enable, OTP, OCP, Low noise, High PSRR	QFN3.5x3.5-20
JWH7823A	1.1~6.5	3000	5000	0.8~5.2V	High Accuracy, High PSRR, Ultra Low noise, Low Dropout	VQFN3.5x3.5-20
JW7830	2.7~20	300	30	Adjustable and fixed options	High PSRR, Low noise, Low Dropout	ESOP8, SOT89
JW7809-1.2	2.2~5.5	600	12	1.2V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7809-1.5	2.2~5.5	600	12	1.5V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6

LDO						
P/N	VIN (V)	I _{OUT} (mA)	I _O (uA)	Output Options	Features	Package
JW7809-1.8	2.2~5.5	600	12	1.8V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7809-2.5	2.2~5.5	600	12	2.5V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7809-2.8	2.2~5.5	600	12	2.8V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7809-2.85	2.2~5.5	600	12	2.85V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7809-2.9	2.2~5.5	600	12	2.9V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7809-3.0	2.2~5.5	600	12	3.0V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7809-3.1	2.2~5.5	600	12	3.1V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7809-3.2	2.2~5.5	600	12	3.2V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7809-3.3	2.2~5.5	600	12	3.3V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7809-4.0	2.2~5.5	600	12	4.0V	Enable, OTP, OCP, Low noise, High PSRR	SOT23-5/DFN2*2-6
JW7897	VIN12:0.6V~3.0V VIN34,5,6,7:2.1V~5.5V	LDO ₁₂ :1400 LDO _{3,4,5,6,7} :400	166	Adjustable	I2C interface, OTP, OCP, Low noise, High PSRR, with VBIAS	WLCSP1.51*1.84-20
JW7820B	1.7~6	500	80	Adjustable	Enable, OTP, OCP, Low noise, High PSRR, PGOOD	WDFN2*2-8
JW78001	2.2~5.5	1000	350	0.8~5V	Enable, OTP, OCP, Low noise, High PSRR	DFN2*2-6
JW78002	2.2~5.5	1500	350	0.8~5V	Enable, OTP, OCP, Low noise, High PSRR	DFN3*3-8

PoE-PSE							
P/N	Channel	PoE Protocol	MOSFET	Supply Range(V)	Interface	Package	Special Features
JWH7290	1	IEEE802.3af/at	External	44V~60V	I2C	QFN5x7-38	PoE++
JWH7291	4	IEEE802.3af/at	External	44V~60V	I2C	QFN5x7-38	~
JW87251	4	IEEE802.3af/at	External	44V~60V	I2C	QFN5x7-38	PoE++
JWH7294	8	IEEE802.3af/at/bt	Internal	44V~60V	I2C	QFN8x8-58	bt
JWH7295	8	IEEE802.3af/at	Internal	44V~60V	I2C	QFN8x8-58	~
JWH7294A	8	IEEE802.3af/at/bt	Internal	44V~60V	I2C	QFN8x8-58	bt
JWH72964	4	IEEE802.3af/at	Internal	44V~60V	I2C	QFN5x5-32	45W per Port
JWH72964A	4	IEEE802.3af/at	Internal	44V~60V	I2C	QFN5x5-32	45W per Port

PoE-PD									
P/N	Channel	PoE Protocol	HotSwap	PoE Current Limit/mA	PoE Inrush Limit/mA	Supply Range(V)	DC/DC Control	Package	Special Features
JWH7241	1	IEEE802.3af/at	Internal	890	135	0~57V	NA	ESOP8	Support Auxiliary Adaptor ORing Power Supply
JWH7241A	1	IEEE802.3af/at	Internal	890	135	0~57V	NA	ESOP8	NA
JWH7232	1	IEEE802.3af	Internal	530	135	0~57V	Flyback	QFN4*5-28	Support Auxiliary Adaptor ORing Power Supply
JWH7232B	1	IEEE802.3af	Internal	530	135	0~57V	Flyback	QFN4*5-28	Support Auxiliary Adaptor ORing Power
JWH7242	1	IEEE802.3af	Internal	NA	110	0~57V	NA	SOT23-5	Support Auxiliary Adaptor ORing Power

USB Charging Controller													
P/N	Input Voltage Range	Role	CC/CV	Protocol								Application	Package
				BC1.2	Apple	AFC	QC2.0	QC3.0	PD3.0/PPS	SCP A/B	UFCS		
JW3119E	2.9V~24V	DFP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Adaptor	QFN4x4-24

H-Bridge

JoulWatt half-bridge drivers integrate a high-side and low-side driver and reduce switching losses, handle noisy environments and improve system efficiency.

H-Bridge							
P/N	V _{IN} (V)	Current Capability(A)	R _{DS(ON)} (HS+LS)	Integrated MOS	I _Q (uA)	Typical Application	Package
JW7902	3~15	1	1000	Y	10	Relay Driver, IR-cut Driver, Motor Driver	DFN2x2-8 / SOT23-6
JW7903	3~15	1	1000	Y	0.04	Relay Driver, IR-cut Driver, Motor Driver	DFN2x2-8 / SOT23-6
JW7951C	4~20	3	40	Y	37	Wireless charger, Full-Bridge Power stage	QFN3x4-15
JW7952	2~14	12.5	12	Y	20	Wireless charger, Full-Bridge Power stage with Demodulation and LDO	QFN3x3.5-21

Gate Driver

JoulWatt gate drivers are used to drive power switching devices such as MOSFETs, IGBTs, SiCFETs, and GaNFETs. The product range includes low-side drivers, half-bridge drivers, and isolated drivers. Choosing the right driving solution helps you easily design efficient, reliable, and lightweight power electronic systems.

Gate Driver								
P/N	Channel	Configuration	Max Boot-Voltage(V)	Capacity (SRC/ SNK, A)	Supply Range(V)	Propagation Delay(ns)	Delay Match(ns)	Package
JWH7911B	2	High-side & low-side	120	4.0/ 4.0	8~15	33	2	SOP8 / DFN4x4-8
JWH7915	2	High-side & low-side	120	4.0/ 4.0	8~15	42	4	DFN4x4-10/ DFN3x3-9
JWH7917	1	Low-side	/	4.0/ 4.0	4.5~20	18	/	SOT23-5/ DFN3x3-6
JWH7924	2	Low-side	/	4.5/ 4.5	4.5~20	13	0.5	SOP8 / EMSOP8 / DFN3x3-8
JWH7935	2	High-side & low-side	700	2.0/ 4.0	9~15	80	10	WQFN5*7-30
JW9610	2	High-side & low-side	120	3.5/3.5	8~15	42	4	SOP8
JW9611	2	High-side & low-side	120	4.0/4.0	8~15	32	2	SOP8/DFN4x4-8
JW9616	1	Low-side	/	4.0/4.0	4.5~18	18	/	DFN3x3-6
JW9617	1	Low-side	/	4.0/4.0	4.5~18	18	/	SOT23-5
JW9624	2	Low-side	/	4.5/4.5	4.5~20	13	1	SOP8/EMSOP8/DFN3x3-8

Analog ICs

JoulWatt's analog signal-chain products cover amplifiers, data converters, clock devices and signal detection devices, etc. The features of wide bandwidth, high precision, and low noise make the products adaptable to a wide range of application scenarios.

General-Purpose Operational Amplifier											
P/N	Channel	Vcc (V)	Rail-to-rail	Iq/channel (uA, Typ)	Input Bias Current (pA, Typ)	GBW (MHz, Typ)	Slew rate (V/us, Typ)	Vos at 25C (mV, Typ)	Vn (nV/rtHz, Typ)	Unit-gain stable	Package
JWS29001	1	1.8~5.5	In, Out	60	5	1	2.4	0.4	35 @ 1kHz	Y	SOT23-5, SOT353, X2DFN
JWS29002	2	1.8~5.5	In, Out	60	5	1	2.4	0.4	35 @ 1kHz	Y	VDFN2*2-8,SOP8,MSOP8
JWS29551	1	1.8~5.5	In, Out	75	1	1.5	1.2	0.5	25 @ 1kHz	Y	SOT23-5
JWS29554	4	1.8~5.5	In, Out	75	1	1.5	1.2	0.5	25 @ 1kHz	Y	SOP14,TSSOP14
JWS29562	2	2.3~5.5	In, Out	700	1	7	10	0.7	35 @ 10kHz	Y	SOP8,MSOP8
JWS29501	1	1.7~5.5	In, Out	0.6	1	0.015	0.006	0.6	177 @ 1kHz	Y	SOT23-5
JWS29502	2	1.7~5.5	In, Out	0.6	1	0.015	0.006	0.6	177 @ 1kHz	Y	SOP8
JWS29504	4	1.7~5.5	In, Out	0.6	1	0.015	0.006	0.6	177 @ 1kHz	Y	TSSOP14
JWS29505	1	1.8~5.5	In, Out	6.6	1	0.5	0.25	0.5	63 @ 1kHz	Y	SOT23-5
JWS29506	2	1.8~5.5	In, Out	6.6	1	0.5	0.25	0.5	63 @ 1kHz	Y	SOP8
JWS29082	2	3~36	Out	680	10	3.5	15	0.5	30 @ 1kHz	Y	SOP8
JWS29084	4	3~36	Out	680	10	3.5	15	0.5	30 @ 1kHz	Y	SOP14

Precision Operational Amplifier												
P/N	Channel	Vcc (V)	Rail-to-rail	Iq/channel (uA, Typ)	Vos @ 25C (mV, Max)	Vos Drift (uV/°C, Max)	Input Bias Current (pA, Typ)	GBW (MHz, Typ)	Slew rate (V/us, Typ)	Vn (nV/rtHz, Typ)	Unit-gain stable	Package
JWS29511	1	1.8~5.5	In, Out	150	0.04	0.05	50	2	1.3	19 @ 1kHz	Y	SOT23-5
JWS29512	2	1.8~5.5	In, Out	150	0.04	0.05	50	2	1.3	19 @ 1kHz	Y	SOP8,MSOP8
JWS29515	1	1.8~5.5	In, Out	750	0.35	1	1	11	11	8 @ 10kHz	Y	SOT23-5
JWS29516	2	1.8~5.5	In, Out	750	0.35	1	1	11	11	8 @ 10kHz	Y	SOP8
JWS29518	4	1.8~5.5	In, Out	750	0.35	1	1	11	11	8 @ 10kHz	Y	SOP14
JWS29712	2	4.5~48	Out	600	0.025	0.05	150	4	2.6	15 @ 1kHz	Y	SOP8

Instrumentation Amplifier												
P/N	Channel #	Vcc (V)	Input Offset max ±(uV)	Voltage Gain (V/V)	Noise@ 1kHz,G=100 (nV/sqrt(Hz))	CMRR min @G=1 (dB)	Input bias current max ±(nA)	Iq (mA)	Bandwidth @G=1 (MHz)	Gain error max ±@ G=100 (%)	Operating temperature range (°C)	Package Group
JWS29791	1	4~36	40	1~1000	9	84	2.5	2.6	2.2	0.2	-40~+125	SOP8,MSOP8
JWS29791U	1	4~36	40	1~1000	9	84	2.5	2.6	2.2	0.2	-40~+125	SOP8,MSOP8

Comparators													
P/N	Ratings	Channel	Vcc (V)	Iq/channel (uA, Typ)	Input Bias Current (pA, Typ)	Vos @ 25C (mV, Typ)	Hysteresis (mV, Typ)	Tpd(ns)	Rise time(ns)	Fall time(ns)	Output Type	Short-Circuit Current (mA, Typ)	Package
JWS29021	Industry	1	1.8~5.5	60	14	2	0.6	46	7	5	PuSl-pull	50	SOT23-5
JWQ29021	Automotive	1	1.8~5.5	60	14	2	0.6	46	7	5	PuSl-pull	50	SOT23-5
JWS29521	Industry	1	1.7~5.5	0.44	5	0.5	5	1700	230	300	PuSl-pull	36	SOT23-5
JWS29531	Industry	1	1.8~5.5	32	5	1	3	240	/	20	Open-drain	-30	SOT23-5
JWS29532	Industry	2	1.8~5.5	32	5	1	3	240	/	20	Open-drain	-30	SOP8
JWS29702	Industry	2	2.0~36	250	22000	1	/	/	/	/	Open-drain	/	SOP8

Current-Sensing Amplifier												
P/N	Channel	Vcc (V)	Common Mode Voltage (V)	Iq (uA, Max)	Input offset (uV, Max@ -40 °C~125 °C)	Input offset drift (Max,uV/°C)	Gain (V/V)	Gain Error (Max@ -40 °C ~125 °C)	CMRR (dB, Typ)	-3dB Bandwidth (kHz, Typ)	Output Type	Package
JWS24285	2	2.7~5.5	2.7~76	750	25	0.1	20	±0.25%	160	130	Analog	MSOP8

Digital Current-Sensing													
P/N	Channel	Vcc (V)	Common Mode Voltage (V)	Iq (uA, Max)	Input offset (uV, Max@ -40 °C~125 °C)	Input offset drift (Typ,uV/°C)	Gain Error (Max@ -40 °C ~125 °C)	Gain error drift (ppm/°C,Typ)	CMRR (dB, Typ)	Resolution (bits,Typ)	Shunt Range (mV,Typ)	Interface	Package
JWS24226	1	2.7~5.5	0~36	330	10	0.02	0.10%	20	160	16	±81.69	I2C or SMBus	MSOP10

Analog Switch												
P/N	Channel	Switch Config	Vcc/Vss (V)	Input Range (V)	Iq (uA, Max)	-3dB Bandwidth (MHz, Typ)	Ron (ohm, Typ)	On Leakage Current (uA, Typ)	Off Leakage Current (uA, Typ)	tON (us, Typ)	tOff (us, Typ)	Package
JWS22750	2	SPDT	1.8~5.5	-2.5~Vcc	17	44	0.5	1.6	1	0.4	0.12	MSOP10, UQFN10
JWS24157N	1	SPDT	-4~ -12	Vss~GND	80	350	1.6	0.01	0.01	0.12(max)	0.14(max)	SOT363

Series Reference									
P/N	Output Voltage (V)	Initial accuracy(Max) (%)	Temp coeff (Max @ -40~125) (ppm/C)	Noise (uVpp/V) 0.1 ~ 10 Hz	Long term Stability (typ) 1st 1000 hr	Vin (V)(Max)	Iq (uA)(Typ)	Operating Temperature (°C)	Package
JWS23512	1.25	0.1	20	15	200	5.5	<500	-40~125	SOT23-3
JWS23520	2.048	0.1	20	15	200	5.5	<500	-40~125	SOT23-3
JWS23525	2.5	0.1	20	15	200	5.5	<500	-40~125	SOT23-3
JWS23530	3	0.1	20	15	200	5.5	<500	-40~125	SOT23-3
JWS23533	3.3	0.1	20	15	200	5.5	<500	-40~125	SOT23-3
JWS23540	4.096	0.1	20	15	200	5.5	<500	-40~125	SOT23-3

Shunt Reference										
P/N	Reference Voltage (V)	Output Voltage (V)	Output Voltage range (V)	Precision (%)	Max Output current (mA)	Temperature Drift (mV)	Output Impedance (Ω)	Cathode Current (uA)	Operating Temperature (°C)	Package
JWS23431A	2.495	Adjustable	36	1	100	15	0.2	300	-40~125	SOT23-3
JWS23431B	2.495	Adjustable	36	0.5	100	5	0.2	300	-40~125	SOT23-3
JWS23432A	2.495	Adjustable	36	1	100	15	0.2	300	-40~125	SOT23-3
JWS23432B	2.495	Adjustable	36	0.5	100	5	0.2	300	-40~125	SOT23-3

High PrecisionΔ-ΣADC											
P/N	Description	Input channels Diff (Single-Ended)	Architechure	Resolution (Bits)	INL (PPM/FS)	Programmable Data Rate(kSPS)	PGA(dB)	Power dissipation (mW)	Interface	Operating Temprature(°C)	Package
JWS27115	Ultra small and low-power dissipation 4-channel, 1KSPS, 16 bit ADC	4	Sigma-Delta	16	8	1	1/3,1/2,1,2,4,8,32	0.5	I2C	-40~+125	MSOP10
JWS27125A	Ultra-Small, Low-Power 4 Channels, 1KSPS, 24Bit ADCs	4	Sigma-Delta	24	10	1	1/3,1/2,1,2,4,8,32	0.5	I2C	-40~+125	MSOP10
JWS27118	4ch, 1ksps, 16b SD ADC, SPI	2(4)	Sigma-Delta	16	±8	1	1/3,1/2,1,2,4,8,32	0.5	ISPI	-40~+125	MSOP10

High Precision SAR ADC													
P/N	Description	Input channels Diff (Single-Ended)	Architechure	Resolution (Bits)	SNR@1kHz (TYP)(dB)	INL	THD@1kHz (dB)	Programmable Data Rate (kSPS)	Input Range(V)	Power Dissipation(mW)	Interface	Operating Temperature(°C)	Package
JWS27588	8ch, 16b, 1 MSPS bipolar input simultaneous ADC	8	SAR	16	91	+/-1LSB	-105	1000	+/-12.5,+/-10,+/-5,+/-2.5	230	SPI/Parallel	-40~+125	LQFP64
JWS27861	16-Bit, 1-MSPS, Serial Interface Low-Power, True-Differential Input SAR Analog-to-Digital Converter	1	SAR	16	96	+/-1LSB	-110	1000	+/-5	7.2	Serial Interface	-40~+125	MSOP10

Clock Buffer										
P/N	Input Level	Input Channel	Output Level	Output Channel	Frequency (MHz)	VDD (V)	VDDO (V)	Propagation Delay	Output Skew	Package
JWH2031	LVPECL/LVDS/HCSL/SSTL/Single-Ended/Crystal	3	LVC MOS	10	0~200	3.3/2.5/ 1.8	3.3/2.5/1.8/ 1.5	1.9 ns (typ) VDD=3.3 V	55 ps (max)	VQFN5*5-32L

Automotive Products

JoulWatt provides various automotive products in highest level quality standard, which applied in complex application environments such as automotive and so on. A wide product portfolio provides engineers design flexibility in intelligent cockpit, ADAS, EV power and other automotive electronic applications. JoulWatt has wide automotive product categories including BUCK, BOOST, BUCK-BOOST, LDO, LED driver, gate drivers, PMIC, Vcore power, and CAN interface.

JWQ52993

Hero Products

6V/3A, 2MHz Syn. Buck

Key Features

- AEC-Q100 Grade 1 Qualified
- 2.7V to 6V Operating Input Range
- 3A Output Current
- Optional 2A JW52992(P2P)
- Output Voltage as Low as 0.45V
- 0.5% FB Accuracy
- Very-Low R_{DS} for Good Thermal Performance
- High Efficiency at Light Load
- 2MHz Switching Frequency
- COT Control
- 100% Duty Cycle
- Power Good (PG)
- Output Discharge
- Internal Soft-Start
- Compact DFN1.5X1.5-6 Package

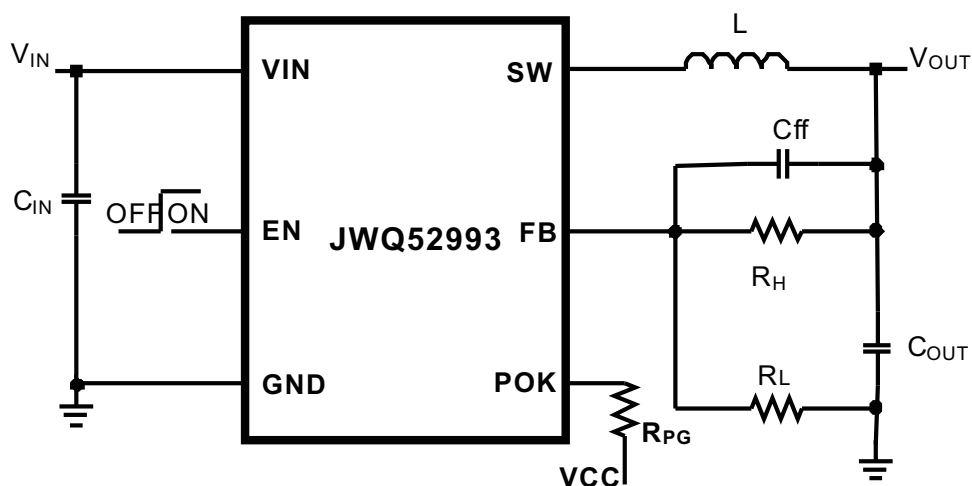
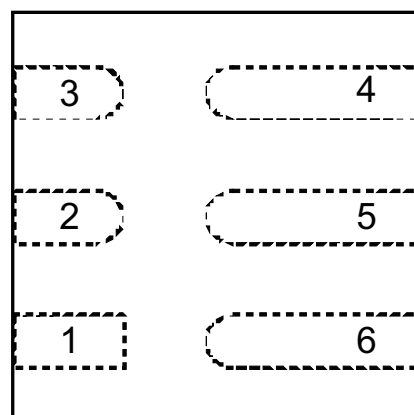
Benefits

- Wide Output Voltage Range
(Support LDDR5 Applications)
- High Output Voltage Accuracy
- Good Thermal Performance
- High Efficiency
- Small Size

Application Fields

- ADAS
- Body Electronics and Lighting
- Infotainment and Cluster
- Hybrid, Electric, and Powertrain Systems

Bottom View



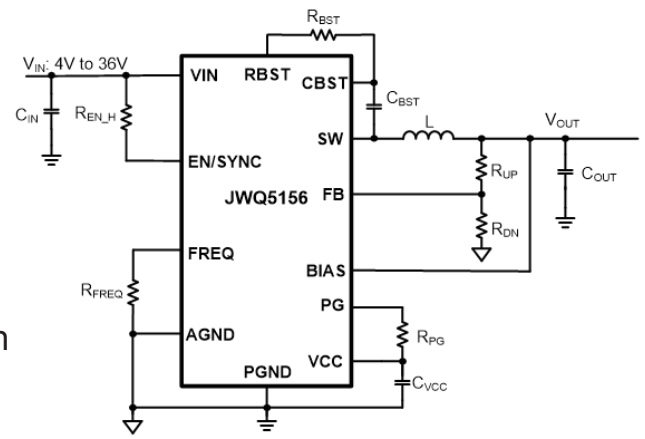
36V/6A Low IQ, Sync-Buck with FSS

Key Features

- AEC-Q100 Grade 1 Qualified
- Wide Input Voltage Range
 - 3.95V to 36V
 - 3V to 36V (After Start-up)
- 6A Continuous Output Current
- Extremely Low Quiescent Current with External Bias Power Supply
- 35ns Minimum On Time
- Integrated 40mΩ/20mΩ Power MOSFETs
- 200kHz to 2.2MHz Programmable Frequency
- FSS for Better EMI Performance
- Available in a VQFN4.0x3.5-14L Package with Wettable Flank

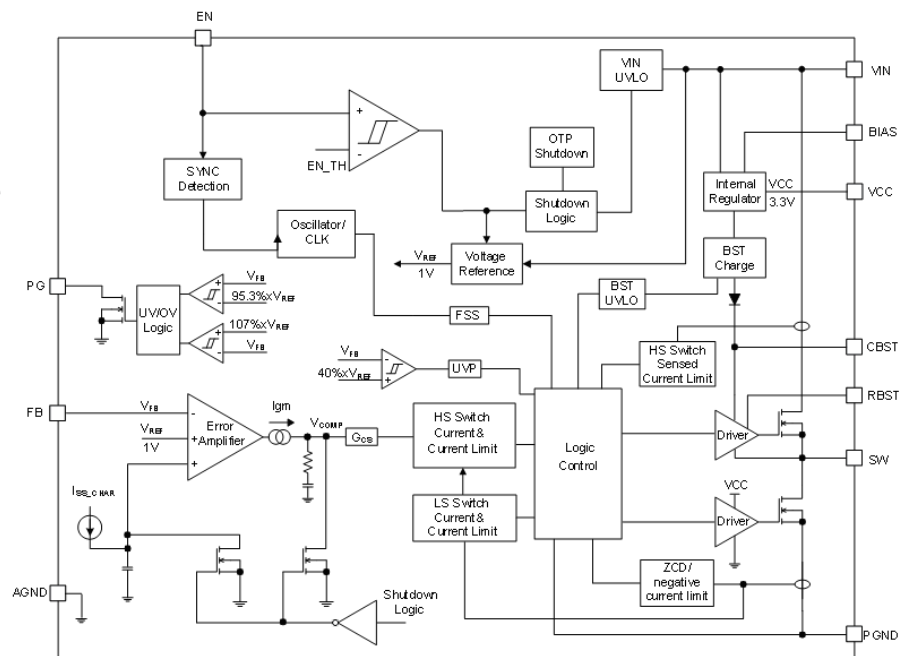
Application Fields

- Infotainment
- Cluster
- Camera
- TBox



Benefits

- Low IQ and Dropout
- Good EMI Performance
- Good Thermal Performance
- High Efficiency and Small Size



36V/2A Power Module

Key Features

- AEC-Q104 Qualified
- 4V to 36V Wide Operating Input Range
- 2A Continuous Load Current
- 2.2MHz Switching Frequency
- Low Quiescent Current : 30uA
- Selectable PSM/FCCM at Light Load
- Built-In Spread-Spectrum Frequency Modulation
- for Low EMI
- Low Dropout Mode
- QFN4*5mm

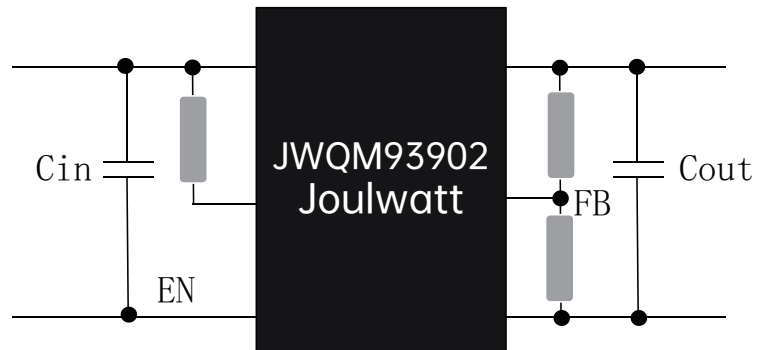
Application Fields

- Lamp Driver
- Cluster
- Camera
- TBox

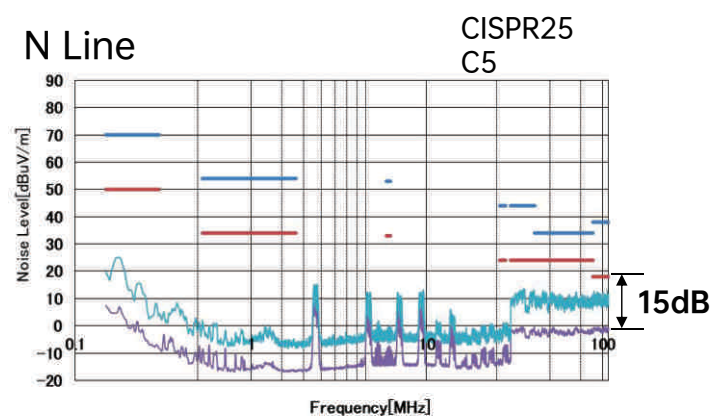
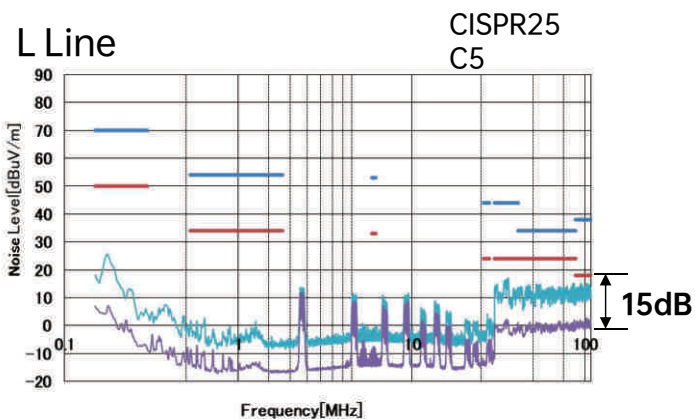


Benefits

- Good EMI Performance
- Low IQ and Dropout
- Small Size



EMI Performance



Automotive Buck Converter												
P/N	Regulated Outputs	V _{IN} (V)	I _{OUT} (A)	V _{FB} (V)	I _Q (uA)	F _{SW} (kHz)	Power Good	Soft Start	Light Load	Sync	Control Method	Package
JWQ5217	1	2.5~5.5	2	0.45	30	2000	Y	Internal	PFM	Y	COT	DFN2X2-8
JWQ52992	1	2.7~6	2	0.45	60	2000	Y	Internal	PFM	Y	COT	DFN1.5X1.5-6
JWQ5273	1	2.95~7	3	0.6	210	400~2400	Y	Adjustable	FCCM	Y	COT	QFN3x3-16
JWQ52993	1	2.7~6	3	0.45	60	2000	Y	Internal	PFM	Y	COT	DFN1.5X1.5-6
JWQ52993F	1	2.7~6	3	0.45	60	2000	Y	Internal	PWM	Y	COT	DFN1.5X1.5-6
JWQ5276	1	2.95~7	6	0.6	210	400~2400	Y	Adjustable	FCCM	Y	COT	QFN3x3-16
JWQ5278	1	2.7~8	14	0.6	550	700/800/1000	Y	Adjustable	FFCCM	Y	COT	QFN3x4-21
JWQ5279	1	2.7~8	20	0.6	550	700/800/1000	Y	Adjustable	FCCM	Y	COT	QFN3x4-21
JWQ5102AS	1	4~36V	2	0.8	45	410	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWQ5102BS	1	4~36V	2	0.8	45	1000	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWQ5102CS	1	4~36V	2	0.8	45	2100	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWQ5102CSF	1	4~36V	2	0.8	45	2100	Y	Internal	FCCM	Y	PCM	QFN3x2-12
JWQ5103AS	1	4~36V	3	0.8	45	410	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWQ5103BS	1	4~36V	3	0.8	45	1000	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWQ5103CS	1	4~36V	3	0.8	45	2100	Y	Internal	PFM	Y	PCM	QFN3x2-12
JWQ5103CSF	1	4~36V	3	0.8	45	2100	Y	Internal	FCCM	Y	PCM	QFN3x2-12
JWQ5154	1	4~36	4	1	2.6	200~2200	Y	Internal	PFM	Y	PCM	EVQFN4.0x3.5
JWQ5155	1	4~36	5	1	2.6	200~2200	Y	Internal	PFM	Y	PCM	EVQFN4.0x3.5
JWQ5156	1	4~36	6	1	2.6	200~2200	Y	Internal	PFM	Y	PCM	EVQFN4.0x3.5
JWQ5157	1	4~36	7	1	2.6	200~2200	Y	Internal	PFM	Y	PCM	EVQFN4.0x3.5
JWQ5123	1	4.5~60	3.5	0.75	180	100~2000	N	Internal	PFM	N	PCM	ESOP8
JWQ5125	1	4.5~60	5	0.75	180	100~2000	N	Internal	PFM	N	PCM	ESOP8
JWQ5125A	1	4.5~60	5	0.75	180	100~2000	N	Internal	PFM	N	PCM&FSS	ESOP8
JWQ5141	1	6~100	1	1.25	160	100~1000	N	Internal	PFM	Y	COT	ESOP8

Automotive Buck Controller								
P/N	Topology	V _{IN} (V)	V _{OUT} (V)	V _{FB} (V)	F _{SW} (kHz)	I _Q (uA)	Package	Features
JWQ6346A	Buck	6~75	0.8~Dmax·V _{IN}	0.8	100~1000	600	QFN3.5X4.5-20	Light Load Selectable(PFM/FCC) MOSFET Gate Driver Voltage Selectable(7.5V/10V)

Automotive Boost Converter											
P/N	Regulated Outputs	V _{IN} (V)	V _{OUT} (V)	I _{Max. Switch Current} (A)	V _{FB} (V)	I _Q (uA)	F _{SW} (kHz)	Soft Start	Light Load	Sync	Control Method
JWQ5513	1	2.8~20	4~20	15	1	80	400-2000	Internal	PFM/PWM/USM	Y	COT

Automotive Boost Controller								
P/N	Topology	V _{IN} (V)	V _{OUT} (V)	V _{FB} (V)	F _{SW} (kHz)	I _Q (uA)	Features	Package
JWQ5583	Boost, Flyback, Sepic	3~50	External	1.275	100~1000	1.5	Automotive Wide Input Non-synchronous Boost, SEPIC, Flyback Controller	MSOP10

Automotive Buck-boost Controller								
P/N	Topology	V _{IN} (V)	V _{OUT} (V)	V _{FB} (V)	F _{SW} (kHz)	I _Q (uA)	Features	Package
JWQ3760	Buck-boost	5~60	1.2~60	1.2	180~400	2500	Automotive 60V 4-Switch Buck-boost Controller	QFN5X5-32

Automotive Power Module											
P/N	Function	V _{IN} (V)	I _{OUT} (A)	V _{FB} (V)	I _Q (uA)	F _{SW} (kHz)	Power Good	Soft Start	Light Load	Isolated	Package
JWQM93902	Buck	4~36	2	0.8	45	2100	Y	Internal	PSM	N	QFN4x5x2-21

Automotive DrMOS						
P/N	V _{IN} (V)	HS Current Limit(A)	Max FSW (kHz)	PWM Logic Voltage(V)	Feature	Package
JWQ7065	3~16	75	1000	3.3	Compatible with mainstream controller	LGA5X6-41

Automotive LED Backlight Driver									
P/N	Channel	Max current per Channel (mA)	Control Interface	Min Dimming Duty (%)	V _{IN} (V)	V _{out} (max) (V)	FSW(kHz)	Max. Switch Current (A)	Package
JWQ1149	4	180	PWM/SMBus	0.392	4.5~36	60	200~900	3.6	EWDFN5X5-16

Automotive Load Switch and USB Switch										
P/N	Channel	V _{IN} (V)	Max I _{OUT} (A)	I _Q (uA)	Soft Start	Enable	Fault Indicator	Programmable Current Limit	OCP	Package
JWQ7101	1	2.7~5.5	1.7	100	Internal	Active High	Y	Y	Y	SOT23-6

Automotive High Side Power Switch						
P/N	Channel	Input Withstand Voltage(V)	R _{DS(ON)} (mohm@25C)	OCP	Diagnosis	Package
JWQ71845	4	40	50	27A	Open -Load Detection, OTP	HTSSOP -16
JWQ71910	1	40	90	18A	Open -Load Detection, OTP	SO-8

Automotive LED Linear Solution								
P/N	MOS Channels	V _{IN} (V)	Max I _{OUT} (mA)	CAN/UART interface	Dimming	Constant Power	Operating temperture	Package
JWQ11710	1	4.5~40	500	N/A	PWM	Y	-40°C to +125°C	HTSSOP-14L
JWQ11711	1	4.5~40	500	N/A	PWM	Y	-40°C to +125°C	EMSOP8
JWQ11724	24	4.5~40	150	Y	PWM	Y	-40°C to +125°C	HTSSOP38

Automotive LDO						
P/N	V _{IN} (V)	I _{OUT} (mA)	I _Q (uA)	Output Options	Features	Package
JWQ7806	2.2~5.5	300	11	Fixed V _{out} from 1.2-4.5V	Enable, OTP, OCP, Low Noise, High PSRR, Low IQ	EWDFN2x2-6/SOT 23-5/X2DFN1x1-4
JWQ7809	2.2~5.5	500	11	Fixed V _{out} from 1.2-4.5V	Enable, OTP, OCP, Low Noise, High PSRR, Low IQ	EWDFN2x2-6/SOT23-5
JWQ7821	2.2~5.5	1000	200	Adjustable	Enable, OTP, OCP, Low noise, High PSRR	DFN3x3-8
JWQ7821A	2.2~5.5	1000	100	Adjustable	Enable, OTP, OCP, Low noise, High PSRR	DFN3x3-8
JWQ7830	2.7~20	300	60	Adjustable	Enable, OTP, OCP, Low noise, High PSRR	ESOP8
JWQ7843	3.2~40	300	17.5	Fixed 3.3V/5V	Enable, OTP, OCP, Low IQ, High PSRR	ESOP8/SOT223/SOT89-5
JWQ7853	3~40	300	17.5	Tracker from 2V to 14V	Enable, OTP, OCP, Low IQ, High PSRR	ESOP8

Automotive Gate Driver

P/N	Channel	Configuration	Capacity (SRC/ SNK, A)	Supply Range(V)	Propagation Delay(ns)	Delay Match(ns)	Package
JWQ7924	2	Low-side	4.5/ 4.5	4.5~20	13	0.5	SOP8 / ESOP8

Automotive Comparators

P/N	Channel	Vcc (V)	Iq/channel (uA, Typ)	Input Bias Current (pA, Typ)	Vos @ 25C (mV, Typ)	Hysteresis (mV, Typ)	Tpd(ns)	Rise time(ns)	Fall time(ns)	Output Type	Short-Circuit Current (mA, Typ)	Package
JWQ29021	1	1.8~5.5	60	14	2	0.6	46	7	5	PuSl-pull	50	SOT23-5

Automotive Current-Sensing Amplifier

P/N	Channel	Vcc (V)	Common Mode Voltage (V)	Iq (uA, Max)	Input offset (uV,Max@ -40°C~125°C)	Input offset drift (Max, uV/°C)	Gain (V/V)	Gain error (Max@-40 °C~125°C)	Gain error drift(ppm/ °C,Max)	CMRR (dB,Typ)	-3dB Bandwidth (kHz,Typ)	Output Type	Package
JWQ24240	1	2.7~5.5	-16~120	3000	±25	±0.25	10~200	0.0001	1	166	1000	Analog	SOP8



LED Lighting

JoulWatt has multiple high power factor output flicker free schemes that can meet a wide range of customer requirements for cost and performance. The patented linear ripple removal scheme can combine cost and performance indicators; A two-stage solution ensures balanced performance indicators.

Non-isolated Switching Regulator												
P/N	Topology	PF	HV-JFET	R _{DS(ON)} (Ω)	Breakdown Voltage(V)	Power@ 175-264Vac	Power@ 90-264Vac	Dimming	COMP	OVP	CV/CC	Package
JW16066	Boost	0.9	Y	External	External	200W	180W	N	External	Y	CC&CV	SSOP10
JW16066B	Boost	0.9	Y	1.8	650V	420V/90mA	420V/50mA	N	External	Y	CC&CV	ESOP8
JW16066C	Boost	0.9	Y	1.2	650V	420V/200mA	420V/100mA	N	External	Y	CC&CV	ESOP8
JW1606S	Boost	0.9	N	External	External	200W	180W	Y	External	Y	CC	SOP8
JW1965O	Boost	0.9	Y	External	External	200W	180W	N	Internal	Y	CC	SOP8
JW1965AC	Boost	0.9	Y	5.5	500	420V / 50mA	450V / 40mA	N	Internal	Y	CC	SOP7
JW1965DC	Boost	0.9	Y	3	500	420V / 60mA	420V / 50mA	N	Internal	Y	CC	SOP7
JW1965FC	Boost	0.9	Y	2.3	500	450V / 80mA	420V / 55mA	N	Internal	Y	CC	SOP7
JW1965BC	Boost	0.9	Y	1.8	600	450V / 80mA	450V / 60mA	N	Internal	Y	CC	SOP7
JW19658B	Boost	0.9	Y	1.8	600	450V / 100mA	450V / 80mA	N	Internal	Y	CC	DIP7
JW19658C	Boost	0.9	Y	1	600	450V / 140mA	450V / 120mA	N	Internal	Y	CC	DIP7
JW19659B	Boost	0.9	Y	1.8	600	450V / 200mA	450V / 90mA	N	Internal	Y	CC	ESOP6
JW19659BC	Boost	0.9	Y	2	500	450V / 180mA	450V / 80mA	N	Internal	Y	CC	ESOP6
JW1813B	Buck-Boost	0.9	Y	1.8	600	100V / 300mA	80V / 300mA	N	Internal	Y	CC	SOP7
JW1967EH	Low-side Buck	0.9	Y	1.8	600	90V / 300mA	70V / 300mA	N	Internal	Y	CC	SOP7
JW1968O	Buck(Low&High)	0.9	Y	External	External	50W	50W	N	Internal	Y	CC	SOP8
JW1969O	Low-side Buck	0.9	Y	External	External	50W	40W	N	Internal	Y	CC	SOP8
JW1969A	Low-side Buck	0.9	Y	8.5	500	90V / 150mA	70V / 150mA	N	Internal	Y	CC	SOP7
JW1969BC	Low-side Buck	0.9	Y	5.5	500	90V / 180mA	70V / 180mA	N	Internal	Y	CC	SOP7
JW1969C	Low-side Buck	0.9	Y	3.2	500	90V / 200mA	70V / 200mA	N	Internal	Y	CC	SOP7
JW1969C1	Low-side Buck	0.9	Y	3.3	500	90V / 200mA	70V / 200mA	N	Internal	Y	CC	SOP7
JW1969DC	Low-side Buck	0.9	Y	2.3	500	90V / 250mA	70V / 250mA	N	Internal	Y	CC	SOP7
JW1969D1	Low-side Buck	0.9	Y	2.4	500	90V / 250mA	70V / 250mA	N	Internal	Y	CC	SOP7
JW1969EC	Low-side Buck	0.9	Y	1.8	500	90V / 300mA	70V / 300mA	N	Internal	Y	CC	SOP7
JW19698C	Low-side Buck	0.9	Y	3	500	90V / 240mA	70V / 240mA	N	Internal	Y	CC	DIP7
JW19698E	Low-side Buck	0.9	Y	1.8	500	90V / 330mA	70V / 330mA	N	Internal	Y	CC	DIP7
JW19698F	Low-side Buck	0.9	Y	2	500	72V / 400mA	54V / 400mA	N	Internal	Y	CC	DIP7
JW1969CU	Low-side Buck	0.9	Y	4	600	90V / 180mA	70V / 180mA	N	Internal	Y	CC	SOP7
JW1969DU	Low-side Buck	0.9	Y	2.3	600	90V / 250mA	70V / 250mA	N	Internal	Y	CC	SOP7
JW1969EU	Low-side Buck	0.9	Y	1.8	600	90V / 300mA	70V / 300mA	N	Internal	Y	CC	SOP7
JW1969AB	Low-side Buck	0.9	Y	9.5	500	90V / 130mA	70V / 130mA	N	Internal	Y	CC	SOP7
JW1969BB	Low-side Buck	0.9	Y	6.5	500	90V / 180mA	70V / 180mA	N	Internal	Y	CC	SOP7
JW1969CB	Low-side Buck	0.9	Y	3.3	500	90V / 200mA	70V / 200mA	N	Internal	Y	CC	SOP7
JW1969DB	Low-side Buck	0.9	Y	2.6	500	90V / 240mA	70V / 240mA	N	Internal	Y	CC	SOP7
JWB19673A	Low-side Buck	0.9	Y	13	650	81V / 100mA	/	N	Internal	Y	CC	ASOP7
JWB19673B	Low-side Buck	0.9	Y	7	650	81V / 150mA	/	N	Internal	Y	CC	ASOP7
JW19673C	Low-side Buck	0.9	Y	4.7	650	90V / 180mA	/	N	Internal	Y	CC	SOP7
JW196738C	Low-side Buck	0.9	Y	4.7	650	90V / 220mA	/	N	Internal	Y	CC	DIP7
JW196738D	Low-side Buck	0.9	Y	2.5	650	90V / 280mA	/	N	Internal	Y	CC	DIP7
JWB19677A	Low-side Buck	0.7	Y	8.5	500	81V / 120mA	70V / 120mA	N	Internal	Y	CC	ASOP7
JWB19677BC	Low-side Buck	0.7	Y	5.5	500	90V / 150mA	70V / 150mA	N	Internal	Y	CC	ASOP7
JWB19677C	Low-side Buck	0.7	Y	3	500	90V / 200mA	70V / 200mA	N	Internal	Y	CC	ASOP7
JW19925N	Low-side Buck	0.5	Y	17	500	100V / 140mA	70V / 140mA	N	N	N	CC	SOP7
JW19925M	Low-side Buck	0.5	Y	13	500	100V / 200mA	70V / 200mA	N	N	N	CC	SOP7
JW19925A	Low-side Buck	0.5	Y	8	500	100V / 260mA	70V / 260mA	N	N	N	CC	SOP7
JW19925B	Low-side Buck	0.5	Y	6	500	100V / 300mA	70V / 300mA	N	N	N	CC	SOP7
JW19925C	Low-side Buck	0.5	Y	3	500	100V / 400mA	70V / 400mA	N	N	N	CC	SOP7
JWB1992S	Low-side Buck	0.5	Y	22	500	100V / 100mA	70V / 100mA	N	N	N	CC	ASOP7

Non-isolated Switching Regulator												
P/N	Topology	PF	HV-JFET	R _{DS(ON)} (Ω)	Breakdown Voltage(V)	Power@ 175-264Vac	Power@ 90-264Vac	Dimming	COMP	OVP	CV/CC	Package
JWB1992N	Low-side Buck	0.5	Y	17	500	100V / 120mA	70V / 120mA	N	N	N	CC	ASOP7
JWB1992M	Low-side Buck	0.5	Y	13	500	100V / 190mA	70V / 190mA	N	N	N	CC	ASOP7
JWB1992A	Low-side Buck	0.5	Y	8	500	100V / 240mA	70V / 240mA	N	N	N	CC	ASOP7
JWB1992B	Low-side Buck	0.5	Y	4.4	500	100V / 300mA	70V / 300mA	N	N	N	CC	ASOP7
JWB1995B	Low-side Buck	0.5	Y	17	500	100V / 110mA	70V / 110mA	N	N	N	CC	ASOP7
JW19957B	Low-side Buck	0.5	Y	17	500	100V / 110mA	70V / 110mA	N	N	N	CC	SOP7
JWB1995SB	Low-side Buck	0.5	Y	17	500	100V / 110mA	70V / 110mA	N	N	N	CC	TSSOP6
JW19975S	Low-side Buck	0.5	Y	22	500	100V / 100mA	70V / 100mA	N	N	N	CC	SOP7
JW19975N	Low-side Buck	0.5	Y	17	500	100V / 140mA	70V / 140mA	N	N	N	CC	SOP7
JW19975M	Low-side Buck	0.5	Y	13	500	100V / 200mA	70V / 200mA	N	N	N	CC	SOP7
JW19975A	Low-side Buck	0.5	Y	8	500	100V / 260mA	70V / 260mA	N	N	N	CC	SOP7
JW19975B	Low-side Buck	0.5	Y	6	500	100V / 300mA	70V / 300mA	N	N	N	CC	SOP7
JW19975C	Low-side Buck	0.5	Y	3	500	100V / 400mA	70V / 400mA	N	N	N	CC	SOP7
JW19976M	Low-side Buck	0.5	Y	13	500	100V / 220mA	70V / 220mA	N	N	N	CC	HSSOP6
JW19976A	Low-side Buck	0.5	Y	8	500	100V / 300mA	70V / 300mA	N	N	N	CC	HSSOP6
JW19976B	Low-side Buck	0.5	Y	4.4	500	100V / 500mA	70V / 500mA	N	N	N	CC	HSSOP6
JW19976C	Low-side Buck	0.5	Y	2.9	500	100V / 600mA	70V / 600mA	N	N	N	CC	HSSOP6
JWB1997S	Low-side Buck	0.5	Y	22	500	100V / 100mA	70V / 100mA	N	N	N	CC	ASOP7
JWB1997N	Low-side Buck	0.5	Y	17	500	100V / 120mA	70V / 120mA	N	N	N	CC	ASOP7
JWB1997M	Low-side Buck	0.5	Y	13	500	100V / 190mA	70V / 190mA	N	N	N	CC	ASOP7
JWB1997A	Low-side Buck	0.5	Y	8	500	100V / 240mA	70V / 240mA	N	N	N	CC	ASOP7
JW19985M	Low-side Buck	0.5	Y	13	500	100V / 190mA	70V / 190mA	EN	N	Y	CC	SOP7
JW19985A	Low-side Buck	0.5	Y	8	500	100V / 240mA	70V / 240mA	EN	N	Y	CC	SOP7
JW19985B	Low-side Buck	0.5	Y	6	500	100V / 300mA	70V / 300mA	EN	N	Y	CC	SOP7
JW19987A	Low-side Buck	0.5	Y	8	500	100V / 240mA	70V / 240mA	EN	N	Y	CC	SOP7
JW19987B	Low-side Buck	0.5	Y	4.4	500	100V / 300mA	70V / 300mA	EN	N	Y	CC	SOP7
JW19987D	Low-side Buck	0.5	Y	2.5	500	100V / 500mA	70V / 500mA	EN	N	Y	CC	SOP7
JW19987E	Low-side Buck	0.5	Y	2	500	100V / 600mA	70V / 600mA	EN	N	Y	CC	SOP7
JW19988B	Low-side Buck	0.5	Y	6	500	100V / 300mA	70V / 300mA	EN	N	Y	CC	DIP7
JW19988C	Low-side Buck	0.5	Y	2.9	500	100V / 400mA	70V / 400mA	EN	N	Y	CC	DIP7
JW19988D	Low-side Buck	0.5	Y	2.5	500	100V / 500mA	70V / 500mA	EN	N	Y	CC	DIP7
JW19988E	Low-side Buck	0.5	Y	2	500	100V / 600mA	70V / 600mA	EN	N	Y	CC	DIP7
JW19989A	Low-side Buck	0.5	Y	8	500	100V / 300mA	70V / 300mA	EN	N	Y	CC	ESOP6
JW19989B	Low-side Buck	0.5	Y	4.4	500	100V / 500mA	70V / 500mA	EN	N	Y	CC	ESOP6
JW19989C	Low-side Buck	0.5	Y	2.9	500	100V / 550mA	70V / 550mA	EN	N	Y	CC	ESOP6
JW19989E	Low-side Buck	0.5	Y	2	500	100V / 600mA	70V / 600mA	EN	N	Y	CC	ESOP6
JW19967M	Low-side Buck	0.5	Y	13	530	100V / 190mA	70V / 190mA	N	N	Y	CC	SOP7
JW19967A	Low-side Buck	0.5	Y	8	500	100V / 240mA	70V / 240mA	N	N	Y	CC	SOP7
JW19967B	Low-side Buck	0.5	Y	5.5	550	100V / 300mA	70V / 300mA	N	N	Y	CC	SOP7
JW19967C	Low-side Buck	0.5	Y	3.5	500	100V / 350mA	70V / 350mA	N	N	Y	CC	SOP7
JW1996EG	Low-side Buck	0.5	Y	1.9	700	100V / 250mA	70V / 250mA	N	N	Y	CC	HSOP7
JW1996HG	Low-side Buck	0.5	Y	0.47	700	100V / 1A	70V / 1A	N	N	Y	CC	ESOP7
JW1994M	Low-side Buck	0.5	Y	13	500	100V / 180mA	70V / 180mA	N	N	Y	CC	SOP8
JW1994A	Low-side Buck	0.5	Y	8	500	100V / 240mA	70V / 240mA	N	N	Y	CC	SOP8
JW1994B	Low-side Buck	0.5	Y	5.5	500	100V / 300mA	70V / 300mA	N	N	Y	CC	SOP8
JW1994C	Low-side Buck	0.5	Y	2.8	500	100V / 400mA	70V / 400mA	N	N	Y	CC	SOP8
JW1994D	Low-side Buck	0.5	Y	1.8	500	100V / 500mA	70V / 500mA	N	N	Y	CC	DIP8
JW1999A	Low-side Buck	0.5	Y	8	500	100V / 240mA	70V / 240mA	N	N	Y	CC	SOP8
JW1999B	Low-side Buck	0.5	Y	5.5	500	100V / 300mA	70V / 300mA	N	N	Y	CC	SOP8

Non-isolated Switching Regulator

P/N	Topology	PF	HV-JFET	R _{DS(ON)} (Ω)	Breakdown Voltage(V)	Power@ 175-264Vac	Power@ 90-264Vac	Dimming	COMP	OVP	CV/CC	Package
JW19966N	Low-side Buck	0.5	Y	17	500	100V / 120mA	70V / 120mA	N	N	Y	CC	HSSOP6
JW19966M	Low-side Buck	0.5	Y	13	500	100V / 150mA	70V / 150mA	N	N	Y	CC	HSSOP6
JW19966B	Low-side Buck	0.5	Y	4.4	500	100V / 300mA	70V / 300mA	N	N	Y	CC	HSSOP6

Isolated Switching Regulator

P/N	Topology	PF	HV-JFET	R _{DS(ON)} (Ω)	Breakdown Voltage (V)	Power@175-264Vac	Power@90-264Vac	Dimming	RTH	COMP	CV/CC	Package
JW1602	Flyback	0.9	N	External	External	100W	80W	PWM/Analog	N	External	CC	SOP8
JW16033	Flyback	0.9	N	External	External	100W	80W	PWM/Analog	Y	External	CC	SOP8
JW1609	Flyback	0.9	N	External	External	100W	80W	N	N	External	CC	SOT23-6
JW16097	Flyback	0.9	N	External	External	100W	80W	N	N	External	CC	SOT23-6
JW16098	Flyback	0.9	N	External	External	100W	80W	N	N	External	CC	SOT23-6
JW1609E	Flyback	0.9	N	1.2	700	40W	25W	N	N	External	CC	DIP8
JW16800	Flyback	0.9	Y	External	External	100W	80W	N	Y	Internal	CC	SOP8
JW16810	Flyback	0.5	Y	External	External	100W	80W	N	N	External	CC	SOP8
JW16638D	Flyback	0.5	Y	2.1	650	40W	30W	N	N	External	CC	DIP7
JW16638F	Flyback	0.5	Y	1.5	650	50W	35W	N	N	External	CC	DIP7
JW16803O	Flyback	0.9	Y	External	External	100W	/	N	Y	Internal	CC	SOP8
JW16607M	Flyback	0.5	Y	24	650	8W	5W	N	N	N	CC	SOP7
JW16608F	Flyback	0.5	Y	1.8	650	40W	30W	N	N	N	CC	DIP7

Linear Solution

P/N	MOS Channels	V _{IN} (V)	Max I _{OUT} (mA)	PF	Dimming	Constant Power	OTP	Package
JWB1981	1	230	100	>0.5	N	N	140	HSOP7
JWB1981S2	1	230	80	>0.5	N	N	150	HSSOP6
JWB1981S3	1	230	100	>0.5	N	N	150	HSSOP6
JWB1981S4	1	230	100	>0.5	N	N	150	HSSOP6
JWB1981S5	1	230	100	>0.5	N	N	150	HSSOP6
JWB1981S6	1	230	100	>0.5	N	N	150	HSSOP6
JW19818L	1	230	60	>0.5	N	N	150	ESOP8
JW19813	1	230	100	>0.5	N	N	140	SOT89-3
JW19818	1	230	100	>0.5	N	N	140	ESOP8
JW19818J	1	230	80	>0.5	N	N	150	ESOP8
JW19818CT	1	230	80	>0.5	N	N	135	ESOP8
JW19819	2	230	100	>0.5	N	N	140	ESOP8
JW19819L	2	230	80	>0.5	N	N	140	ESOP8
JW19818C	1	230	100	>0.5	N	N	150	ESOP8
JW19818T	1	230	100	>0.5	N	N	115	ESOP8

Linear Solution								
P/N	MOS Channels	V _{IN} (V)	Max I _{OUT} (mA)	PF	Dimming	Constant Power	OTP	Package
JW19828	1	120	300	>0.5	PWM, Analog, TRIAC	Y	150	ESOP8
JW1691H	1	230	150	>0.5	PWM, Analog, TRIAC	Y	150	SOT89-3/TO252
JW16918	1	230	150	>0.5	EN	Y	150	ESOP8
JWB19818L	2	120/220	100	>0.5	N	Y	150	HSOP8
JWB19816	2	220	300	>0.5	N	Y	150	HSOP8
JWB1698D	2	127/220	80	>0.7	N	Y	150	HSOP8
JW198528	2	100-300	100	>0.7	N	Y	150	ESOP8
JW1985	3	100-300	100	>0.9	N	Y	145	ESOP8
JW19853	3	100-300	100	>0.9	N	Y	120/135/150	ESOP8
JWB1985	3	100-300	100	>0.9	N	Y	120/135/150	HSOP8
JW19836	4	120/220	100	>0.9	N	Y	150	ESOP16
JW18220	1	120/220	500	>0.5	PWM, Analog	N	120/150	SOT23-6
JW18221	1	120/220	60	>0.5	PWM	N	120/150	ESOP8
JW18222	2	120/220	60	>0.5	PWM	N	120/150	ESOP8
JWB18226	2	120/220	60	>0.5	PWM	N	150	HSOP8
JW18226	2	120/220	60	>0.5	PWM	N	150	HSSOP10
JW18222S	2	120/220	60	>0.5	PWM	N	150	PVDFN3.3*3.3-8
JW1882	2	230	90	>0.5	ON/OFF CCT/DIM	Y	150	ESOP8
JW16925	1	230	90	>0.7	EN with 5V Aux Power	Y	150	ESOP8
JW16926	1	230	90	>0.5	PWM with 5V Aux Power	Y	150	ESOP8
JW16928	1	230	90	>0.7	PIR use with 5V Aux Power	Y	150	ESOP8

Dimmable Solution									
P/N	Topology	MOSFET	V _{IN} (V)	Power@175-264Vac	Power@90-140Vac	Dimming	COMP	OTP	Package
JW16979C	Linear	Internal	120	-	130V / 50mA	TRIAC	N	135/150	ESOP8
JW19876	Linear	Internal	120	-	130V / 50mA	TRIAC	N	150	ESOP8
JW18066M	BOOST	Internal	90~260	420V / 30mA	420V / 20mA	TRIAC	Internal	150	SOP8
JW1806M	BOOST	Internal	90~260	420V / 30mA	420V / 20mA	TRIAC	Internal	150	SOP8
JW1806A	BOOST	Internal	90~260	420V / 40mA	420V / 30mA	TRIAC	Internal	150	SOP8
JW1806B	BOOST	Internal	90~260	420V / 50mA	420V / 40mA	TRIAC	Internal	150	SOP8
JW1806C	BOOST	Internal	90~260	420V / 60mA	420V / 50mA	TRIAC	Internal	150	SOP8
JW1806EH	BOOST	Internal	90~260	420V / 70mA	420V / 60mA	TRIAC	Internal	150	SOP8
JW1806E	BOOST	Internal	90~260	420V / 90mA	420V / 50mA	TRIAC	Internal	150	SOP8
JW1807BH	Buck-Boost	Internal	230	120V / 140mA	90V / 120mA	TRIAC	Internal	120/130/150	SOP8
JW1807C	Buck-Boost	Internal	120	-	90V / 160mA	TRIAC	Internal	120/130/150	SOP8
JW1807CH	Buck-Boost	Internal	230	120V/160mA	90V / 140mA	TRIAC	Internal	120/130/150	SOP8
JW1807E	Buck-Boost	Internal	120	-	90V / 190mA	TRIAC	Internal	120/130/150	SOP8
JW1807O	Buck-Boost	External	120/230	50W	35W	TRIAC	Internal	120/130/150	SOP8
JW18287A	BUCK	Internal	90~260	100V / 240mA	70V / 240mA	PWM	Internal	150	SOP8
JW18287B	BUCK	Internal	90~260	100V / 300mA	70V / 300mA	PWM	Internal	150	SOP8
JW18287C	BUCK	Internal	90~260	100V / 400mA	70V / 400mA	PWM	Internal	150	SOP8
JW18287D	BUCK	Internal	90~260	100V / 500mA	70V / 500mA	PWM	Internal	150	SOP8
JW18287E	BUCK	Internal	90~260	100V / 600mA	70V / 600mA	PWM	Internal	150	SOP8

Dimmable Solution									
P/N	Topology	MOSFET	V _{IN} (V)	Power@175-264Vac	Power@90-140Vac	Dimming	COMP	OTP	Package
JW18288B	BUCK	Internal	90~260	100V / 400mA	70V / 400mA	PWM	Internal	150	DIP8
JW18288C	BUCK	Internal	90~260	100V / 500mA	70V / 500mA	PWM	Internal	150	DIP8
JW18288D	BUCK	Internal	90~260	100V / 600mA	70V / 600mA	PWM	Internal	150	DIP8
JW18288E	BUCK	Internal	90~260	100V / 700mA	70V / 700mA	PWM	Internal	150	DIP8
JW1828O	BUCK	External	90~260	150W	100W	PWM	Internal	150	SOP8
JW1829D	BUCK	External	90~260	150W	100W	PWM*2+IIC	Internal	150	SOP16
JW1829N	BUCK	External	90~260	150W	100W	PWM*3	Internal	150	SSOP10

DC Input Lighting Product								
P/N	V _{IN} (V)	Topology	Switch Current Limit	Frequency	Operation Mode	Dimming	Sync	Package
JW1120	4.5~20	Buck	1.7A	1MHz	FCCM	PWM / Analog	Y	TSOT23-6
JW1123	4.5~28	Buck	2A	600KHz	FCCM	PWM	Y	SOT23-6
JW1130H	4.5~40	Buck / Boost / Buck-Boost	2A	Constant 2us toff	CCM+DCM	Analog	N	ESOP8/SOT23-6
JW1180O	6~80	Buck	N	Tunable	CCM+DCM	PWM		SOP8
JW1180E	6~80	Buck	N	Tunable	CCM+DCM	PWM	N(200mR MOSFET Inside)	ESOP8
JW11A0	15~100	Buck	N	Tunable	CRM	N	N	ESOP8

Ripple Remover								
P/N	MOS	V _{IN} (V)	Max I _{OUT} (A)	OVP/SCP	Dimming	COMP	OTP	Package
JW1221A	External	18~600	5	Hiccup	N	External	145	SOT23-6
JW1236A	Internal	16~65	0.5	Hiccup	N	Internal	150	SOT89-3 / TO252-2
JW1236B	Internal	16~65	1.8	Hiccup	N	Internal	150	TO252-2 / TO220-3
JW1251O	External	12~600	5	Hiccup	TRIAC / PWM/Analog	External	145	SOT23-6
JW1251A	External	18~60	0.5	Hiccup	TRIAC / PWM/Analog	External	145	ESOP8
JW1255O	External	12~400	5	Hiccup	TRIAC / PWM/Analog	Internal	145	SOT23-6
JW12555B	Internal	25~60	1.5	Hiccup	TRIAC / PWM/Analog	Internal	150	TO-252
JW12552B	Internal	25~60	1.5	Hiccup	TRIAC / PWM/Analog	Internal	150	TO-220-3
JW12557C	Internal	25~150	0.5	Hiccup	TRIAC / PWM/Analog	Internal	150	ESOP8
JW12558A	Internal	25~60	0.5	Hiccup	TRIAC / PWM/Analog	Internal	150	ESOP8
JW12558C	Internal	25~150	0.5	Hiccup	TRIAC / PWM/Analog	Internal	150	ESOP8
JW12558D	Internal	25~150	0.4	Hiccup	TRIAC / PWM/Analog	Internal	150	ESOP8
JWM362	Internal	40V	0.06	N	TRIAC / PWM/Analog	External	N	SOT23-3
JWM362H	Internal	60V	0.06	N	TRIAC / PWM/Analog	External	N	SOT23-3
JWM367	Internal	40V	0.06	N	TRIAC / PWM/Analog	External	N	SOT23-3
JWM367H	Internal	60V	0.06	N	TRIAC / PWM/Analog	External	N	SOT23-3
JWM368	Internal	40V	0.18	N	TRIAC / PWM/Analog	External	N	SOT89-3
JWM368H	Internal	60V	0.18	N	TRIAC / PWM/Analog	External	N	SOT89-3
JWM369	Internal	40V	0.24	N	TRIAC / PWM/Analog	External	N	SOT89-3
JWM369H	Internal	60V	0.24	N	TRIAC / PWM/Analog	External	N	SOT89-3
JWM3618	Internal	60V	0.04	N	TRIAC / PWM/Analog	External	N	SOT23-3

Electric Shock Protection IC							
P/N	R _{DS(ON)} (Ω)	Breakdown Voltage(V)	Power@175-277Vac	Power@90-277Vac	Detection Mode	Dimming	Package
JW1816	External	External	GFCI	Earth Leakage	Type A RMS	/	SOP8
JW1818O	External	External	100W	80W	Voltage	/	SOP8
JW1818B	1.8	600	50W	30W	Voltage	/	SOP8
JW1830D	1.9	600	70V/280mA	60V/280mA	Voltage	/	SOP8
JW1831D	1.9	600	70V/280mA	60V/280mA	Voltage	Trailing edge	SOP8
JW1832D	1.9	600	70V/280mA	60V/280mA	Voltage	Trailing edge	SOP8
JW1832O	External	External	30W	30W	Voltage	Trailing edge	SOP8
JW18326O	External	External	50W	50W	Voltage	Trailing edge	SOP14

AC/DC Special IC						
P/N	Device	Breakdown Voltage(V)	Source Current @V _{cc} =10V	Function	V _{cc} Voltage(V)	Package
JW7921	N-JFET	600	4mA	0.5S Shut-down	27	SOT23-3
JW7920	N-JFET	600	4mA	High Efficiency Charging	14.5	SOT23-3

Sinle Live Line IC						
P/N	Breakdown Voltage(V)	R _{DS(ON)} (Ω)	Maxmum Power(W)	I _Q (uA) max	V _{OUT} (V)	Package
JW1539A	25	0.008	800	40	12	TO252-2
JW1539O	25	External	2000	40	12	SOP8



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