

## DESCRIPTION

The JWQ7806 is a low noise low-dropout (LDO) voltage regulator with enable function that operates from 2.2V to 5.5V. It provides up to 300mA of output current. The feature of low noise and high PSRR makes this device ideal for RF and analog systems.

JWQ7806 supports output voltage from 1.2V to 4.5V in 25mV steps.

JWQ7806 guarantees robustness with output short-circuit protection, input under voltage lockout protection and over temperature protection.

JWQ7806 is available in SOT23-5, X2DFN1×1-4 and EWDFN2×2-6 packages.

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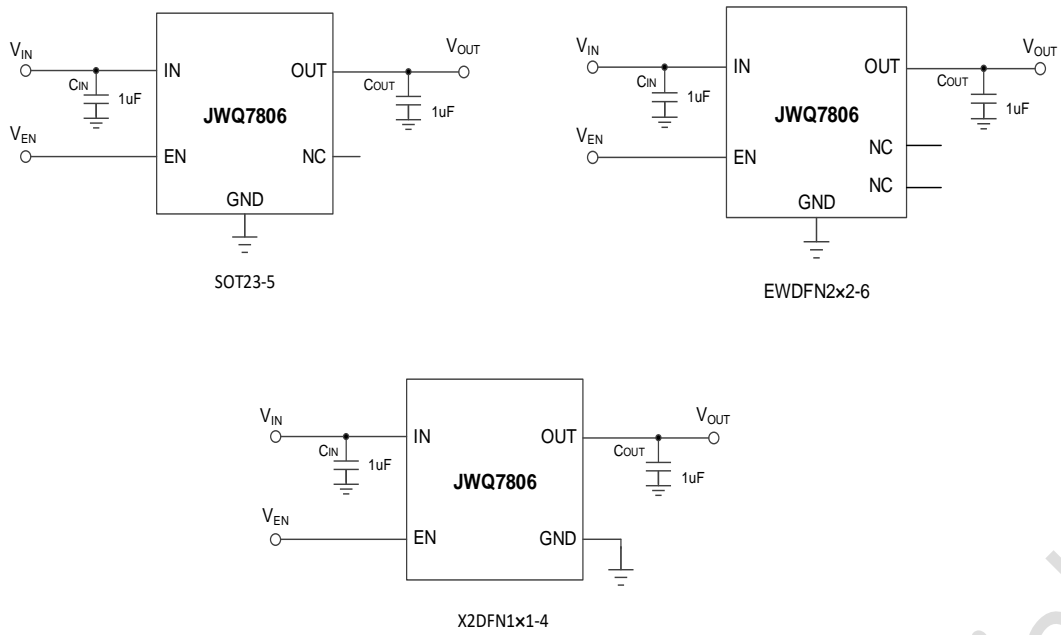
## FEATURES

- AEC-Q100 Grade1 Qualified
- Input Voltage Range: 2.2V to 5.5V
- Output Voltage Range: 1.2V to 4.5V
- Output Current: 300mA
- Output Voltage Accuracy:  $\pm 2\%$
- Low  $I_q$ (Enabled): 11 $\mu$ A
- Low Dropout: 120mV(Typical)
- PSRR: 82dB @1kHz
- Low Output Voltage Noise: 12 $\mu$ V<sub>RMS</sub>
- Stable with 0.3 $\mu$ F Effective Output Capacitance
- Remote Output Capacitor Placement
- No Noise Bypass Capacitor Required
- Current Limit Protection
- Over Temperature Protection
- Available in SOT23-5, X2DFN1×1-4, EWDFN2×2-6 Packages

## APPLICATIONS

- Automotive ADAS Cameras and Radar
- Automotive ADAS Domain Controller
- Automotive Cockpit Domain Controller
- Automotive Telematics Systems

TYPICAL APPLICATION



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ORDER INFORMATION

DEVICE <sup>1)</sup>	PACKAGE	TOP MARKING <sup>2)</sup>	ENVIRONMENTAL <sup>3)</sup>
JWQ7806-1.2EWDGBB#TR	EWDFN2x2-6	JWXY□ YW□□□	Green
JWQ7806-1.5EWDGBB#TR	EWDFN2x2-6	JACU□ YW□□□	Green
JWQ7806-1.8EWDGBB#TR	EWDFN2x2-6	JWXX□ YW□□□	Green
JWQ7806-2.5EWDGBB#TR	EWDFN2x2-6	JWXW□ YW□□□	Green
JWQ7806-2.8EWDGBB#TR	EWDFN2x2-6	JACV□ YW□□□	Green
JWQ7806-2.9EWDGBB#TR	EWDFN2x2-6	JACW□ YW□□□	Green
JWQ7806-3.0EWDGBB#TR	EWDFN2x2-6	JACX□ YW□□□	Green
JWQ7806-3.3EWDGBB#TR	EWDFN2x2-6	JWXV□ YW□□□	Green
JWQ7806-1.2SOTA#TR	SOT23-5	JWXY□ YW□□□	Green
JWQ7806-1.5SOTA#TR	SOT23-5	JACU□ YW□□□	Green
JWQ7806-1.8SOTA#TR	SOT23-5	JWXX□ YW□□□	Green
JWQ7806-2.5SOTA#TR	SOT23-5	JWXW□ YW□□□	Green
JWQ7806-2.8SOTA#TR	SOT23-5	JACV□ YW□□□	Green
JWQ7806-2.9SOTA#TR	SOT23-5	JACW□ YW□□□	Green
JWQ7806-3.0SOTA#TR	SOT23-5	JACX□ YW□□□	Green
JWQ7806-3.3SOTA#TR	SOT23-5	JWXV□ YW□□□	Green
JWQ7806-1.2X2DHAB#TR	X2DFN1x1-4	R□	Green
JWQ7806-1.5X2DHAB#TR	X2DFN1x1-4	Y□	Green
JWQ7806-1.8X2DHAB#TR	X2DFN1x1-4	S□	Green
JWQ7806-2.5X2DHAB#TR	X2DFN1x1-4	T□	Green
JWQ7806-2.8X2DHAB#TR	X2DFN1x1-4	U□	Green
JWQ7806-2.9X2DHAB#TR	X2DFN1x1-4	Z□	Green

JWQ7806-3.0X2DHAB#TR	X2DFN1x1-4	a□	Green
JWQ7806-3.3X2DHAB#TR	X2DFN1x1-4	v□	Green

**Notes:**

- JW□□#TR

  - Tape and Reel (If TR is not shown, it means Tube)
  - Package Code
  - Part No.
- SOT23-5 EWDNF2x2-6

Line1: JW□□□

  - Product code
  - JoulWatt LOGO

Line2: YW□□□

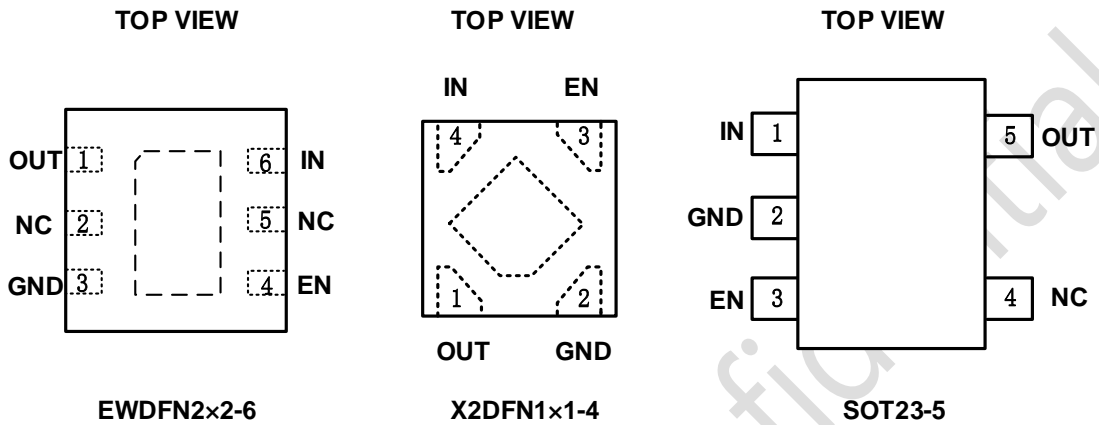
  - Lot number
  - Week code
  - Year code

X2DFN1x1-4

Line1: □□

  - Lot number
  - Product code
- All JoulWatt products are packaged with Pb-free and Halogen-free materials and compliant to RoHS standards.

**PIN CONFIGURATION**



**PIN DESCRIPTION**

	Pin			Name	Description
	EWDFN2x2-6	X2DFN1x1-4	SOT23-5		
1	1	5	OUT	Output of the regulator. A 1μF or larger output capacitor is recommended.	
2	-	4	NC	Not connected.	
3	2	2	GND	Ground.	
4	3	3	EN	Enable input.	
5	-	-	NC	Not connected.	
6	4	1	IN	Supply voltage input. A 1μF or larger input capacitor is recommended.	
Exposed Pad	-	-	-	The exposed pad should be connected to a large ground plane to maximize thermal performance.	

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