



ZHEJIANG UNIÜ-NE Technology CO., LTD

浙江宇力微新能源科技有限公司



## U6212 Data Sheet

V 1.1

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**Features**

- Low voltage drop: 0.26V@100mA & VOUT=3.3V
- High input voltage: 15V
- Low temperature coefficient
- Large Output Current: 500mA
- Low Quiescent Current: 2.0uA
- Output voltage accuracy: tolerance ±2%
- Built-in current limiter
- SOT89,SOT89-5,SOT23-3 ,SOT23-5and SOT223 packages

**Applications**

- Battery-powered equipment
- Hand-Hold Equipment
- GPS Receivers
- Wireless LAN

**General Description**

The U6212 series is a group of positive voltage output, three-pin regulators, it provide a high current even when the input/output voltage differential is small. Low power consumption and high accuracy is achieved through CMOS and laser trimming technologies.

The U6212 consists of a high-precision voltage reference, an error amplification circuit, and a current limited output driver. Load Transient response has improved in comparison to the existing series. SOT89, SOT89-5, SOT23-5 and SOT223 packages

**Selection Table**

Part No.	Output Voltage	Package	Marking
U6212-XXX	2.8V	SOT89 SOT89-5 SOT23-3 SOT23-5 SOT223	Refer to Marking rule
	3.0V		
	3.3V		
	3.6V		
	4.0V		
	4.5V		
	5.0V		

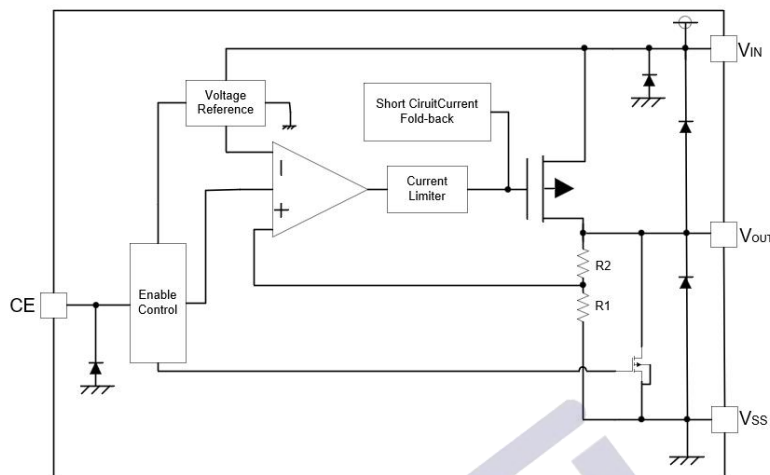
**Order Information**

U6212- ①②③

Designator	Symbol	Description
①②	Integer	Output Voltage
③	A	Package:SOT89
	B	Package:SOT89-5
	C	Package:SOT23-3
	D	Package:SOT23-5
	E	Package:SOT223

Note: "①②" stands for output voltages. Other voltages can be specially customized

**Block Diagram**



**Pin Assignment**

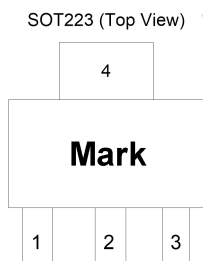


Table1: U6212 series (SOT223 PKG)

PIN NO.	PIN NAME	FUNCTION
1	GND	GND pin
2	VIN	Input voltage pin
3	VOUT	Output voltage pin
4	VIN	Input voltage pin

SOT23-3 (Top View)

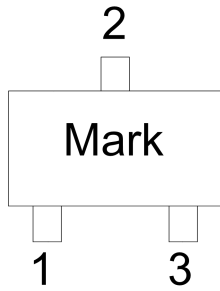


Table2: U6212 (SOT23-3 PKG)

PIN NO.	PIN NAME	FUNCTION
1	GND	GND pin
2	VIN	Input voltage pin
3	VOUT	Output voltage pin

SOT23-5 (Top View)

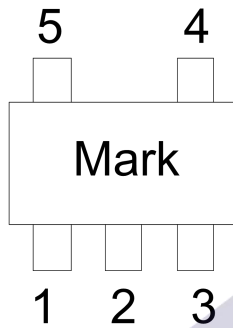


Table3: U6212 series (SOT23-5 PKG)

PIN NO.	PIN NAME	FUNCTION
1	VIN	Input voltage pin
2	GND	GND pin
3	CE	Enable pin
4	NC	--
5	VOUT	Output voltage pin

SOT89 (Top View)

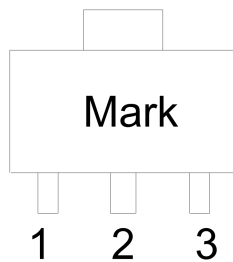


Table4: U6212 series (SOT89 PKG)

PIN NO.	PIN NAME	FUNCTION
1	GND	GND pin
2	VIN	Input voltage pin
3	VOUT	Output voltage pin

SOT89-5 (Top View)

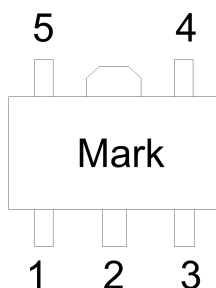
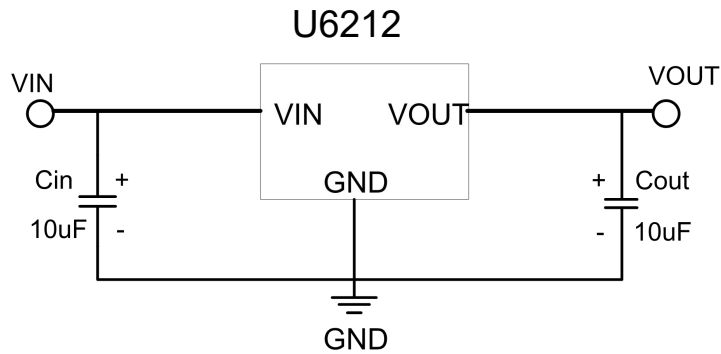


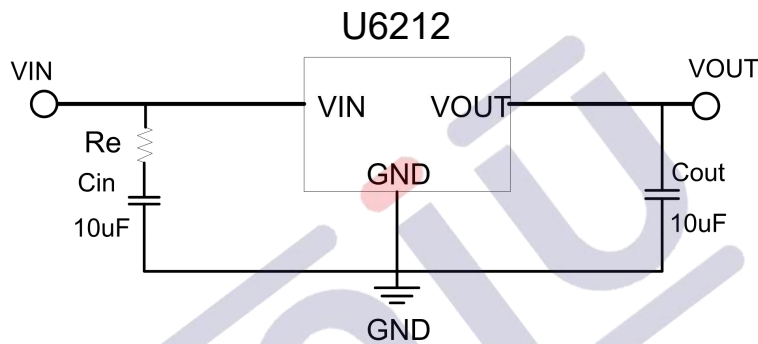
Table5: U6212 series (SOT89-5 PKG)

PIN NO.	PIN NAME	FUNCTION
1	CE	Enable pin
2	VIN	Input voltage pin
3	NC	--
4	GND	GND pin
5	VOUT	Output voltage pin

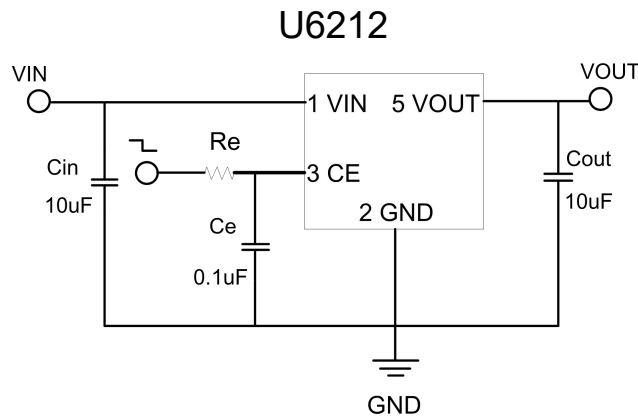
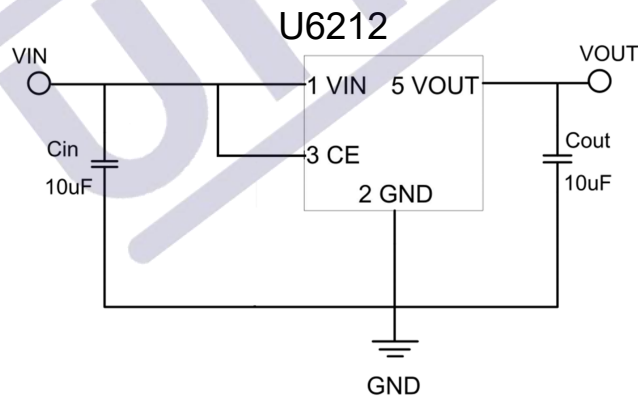
Typical Application



Note1:  $C_{in}=C_{out}=10\mu F$ . (10µF Electrolytic capacitor is recommended).  
 Note2: If the input and output capacitors are ceramic, add a resistor at the input, as follows.



Note:  $R_e = (1.2 \sim 1.8) \Omega$ .



Note1: Input capacitor  $C_{IN}=10\mu F$ .  
 Note2: Output capacitor  $C_{OUT}=10\mu F/6.8\mu F$  (1µF Tantalum capacitor or 6.8µF ceramic capacitor is recommended).  
 Note3: The CE port is recommended to connect the current limiting resistor  $R_e$ . The recommended resistance is 10K~47K. When the input voltage is larger than or equal to 12V, it is recommended to add a 0.1µF capacitor  $C_e$ .

## 1. 版本记录

DATE	REV.	DESCRIPTION
2019/04/11	1.0	首次发布
2022/03/13	1.1	布局调整

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