

LDO ICs

## Micro-Power consumption 30V, 200mA, Low Low-Dropout Voltage Linear Regulator



### AS9122

#### ● General Description

The AS9122 is a CMOS low dropout, low noise, low power consumption, low quiescent current positive linear regulator with wide input voltage range. The AS9122 can deliver a guaranteed 200mA load current with a low dropout voltage. Quiescent current of only 2.2uA makes these devices ideal for powering the battery-powered, always-on systems that require very little idle-state power dissipation to a longer service life.

The device is suitable for portable application such as cellular handsets or PDA. The AS9122 is designed and optimized to work with low cost ceramic capacitors 1.0uF. Besides, its current limit protection and on-chip thermal shutdown function provide protection against any combination of over-load or ambient temperature which could cause junction temperature exceeding maximum rating. The AS9122 includes a reference bypass pin in order to reduce output noise and a logic control shut-down input.

The space-saving tiny SOT89-3L, SIP3L and SOT23-5L packages are attractive for hand-held applications. The device is specified over an ambient temperature range of -40°C to 125°C.

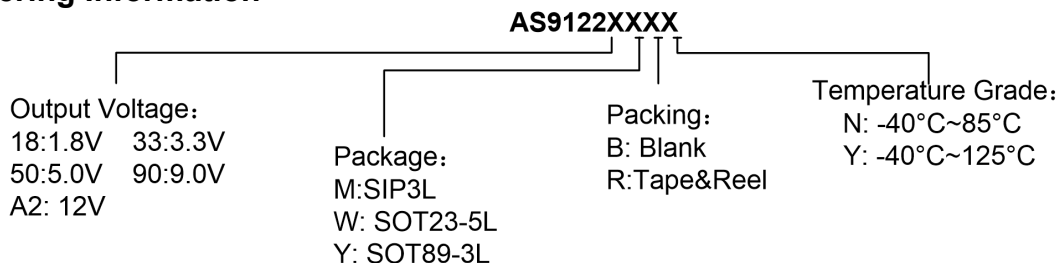
#### ● Features

- Output Current Up to 200mA
- Wide Voltage  $V_{IN}$  Range: 2.0V to 30V
- Very Low Quiescent Current at 2.2uA
- Low Dropout voltage of 550mV at 100mA/ $V_{IN}=5V$
- Output Voltage Accuracy at  $\pm 1.0\%$
- Support Fixed Output Voltage: 1.8V, 3.3V, 5V, 9V, 12V.
- PSRR 70dB at 100Hz
- Needs Only 1.0uF Capacitor for Stability
- Current Limit Protection
- Without EMI and Switch Noise
- Stable with Ceramic Capacitor or Tantalum Capacitor
- RoHS and Green Compliant
- SOT89-3L, SIP3L and SOT23-5L Packages
- -40°C to +125 °C Temperature Range

#### ● Applications

- Portable, Battery Powered Equipment
- Low Power Microcontrollers
- Laptop, Palmtops & PDAs
- Audio/Video Equipment
- Car Navigation Systems
- Industrial Control
- Weighting Scales
- Meters/Home Automation

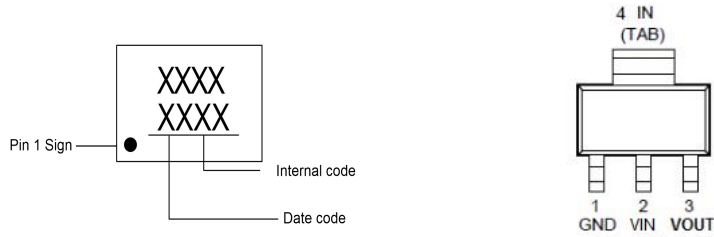
#### ● Ordering Information



Part Number	Driver Capability	Package Type	Package Qty	Temperature	Eco Plan
AS9122-XXMBN	200mA	SIP-3L	1000pcs/Package	-40~85°C	RoHS
AS9122-XXWRN	200mA	SOT23-5L	7-in reel 3000pcs/reel	-40~85°C	RoHS
AS9122-XXYRN	200mA	SOT89-3L	7-in reel 2000pcs/reel	-40~85°C	RoHS
AS9122-XXMBY	200mA	SIP-3L	1000pcs/Package	-40~85°C	RoHS
AS9122-XXWRY	200mA	SOT23-5L	7-in reel 3000pcs/reel	-40~125°C	RoHS
AS9122-XXYRY	200mA	SOT89-3L	7-in reel 1000pcs/reel	-40~125°C	RoHS

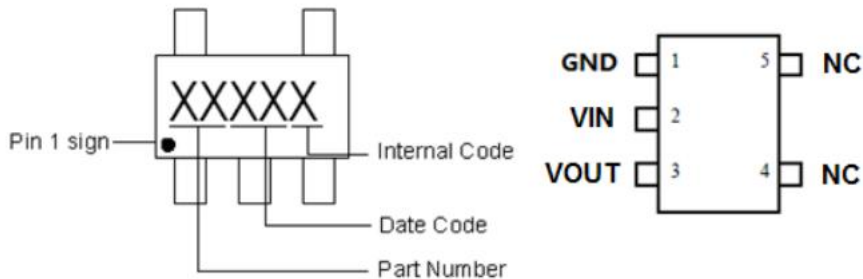
● **Marking Information & Pin Assignment**

**SOT89-3L:**



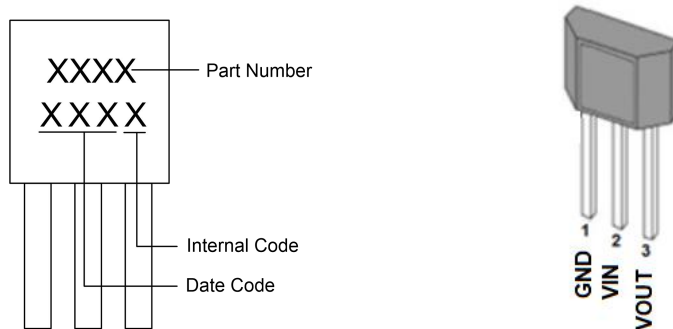
Pin Name	Pin No.	I/O	Pin Function
	SOT89-3L		
VOUT	3	O	Output Pin
GND	1	P	Ground
VIN	2	P	Input Power Supply
TAB	4	P	Please Connected to VIN.

**SOT23-5L**



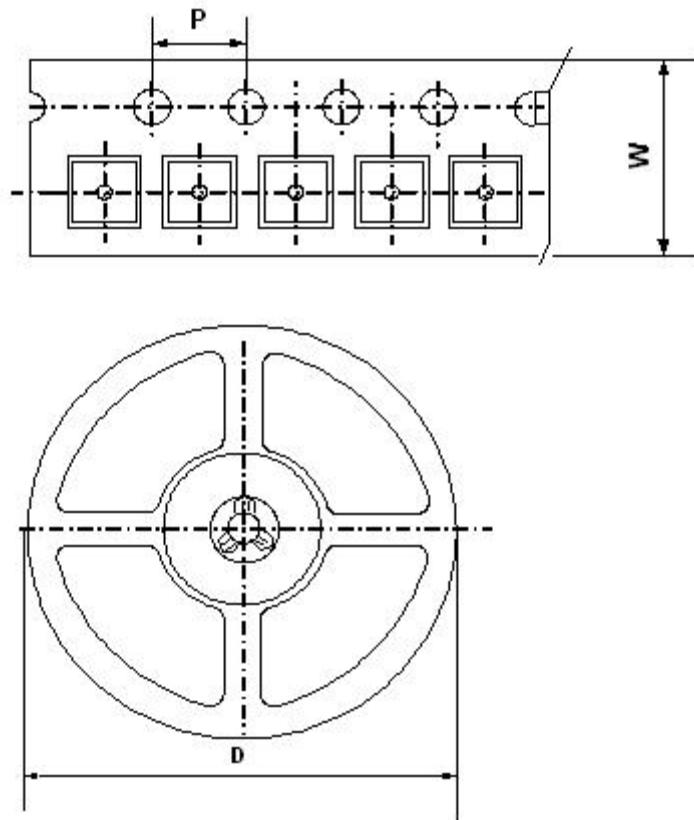
Pin Name	Pin No.	I/O	Pin Function
	SOT23-5L		
GND	1	P	Ground
VIN	2	P	Input Power Supply
VOUT	3	O	Output Pin
NC	3, 4	-	Not Connected.

**SIP-3L**



Pin Name	Pin No.	I/O	Pin Function
	SIP-3L		
VIN	2	P	Input Power Supply
GND	1	P	Ground
VOU	3	O	Output Pin.

■ **Packing Information**



Package Type	Carrier Width(W)	Pitch(P)	Reel Size(D)	Packing Minimum
SOT23-5L	8.0±0.1 mm	2.0±0.1 mm	180±1 mm	3000pcs
SOT89-3L	8.0±0.1 mm	4.0±0.1 mm	180±1 mm	1000pcs

Note: Carrier Tape Dimension, Reel Size and Packing Minimum

■ **Packing Information**

1. Packing type: Bulk
2. Packing minimum: 1000pcs