

LDO ICs

# Micro-Power consumption 55V, 200mA, Low Low-Dropout Voltage Linear Regulator

**AS9150**

## ● General Description

The AS9150 is a CMOS low dropout, low noise, low power consumption, low quiescent current positive linear regulator with wide input voltage range. The AS9150 can deliver a guaranteed 200mA load current with a low dropout voltage. Quiescent current of only 2.0uA 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 AS9150 is designed and optimized to work with low cost ceramic capacitors 1.0uF, which consumes less than 0.1uA during shutdown mode. 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 AS9150 includes a reference bypass pin in order to reduce output noise and a logic control shut-down input.

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

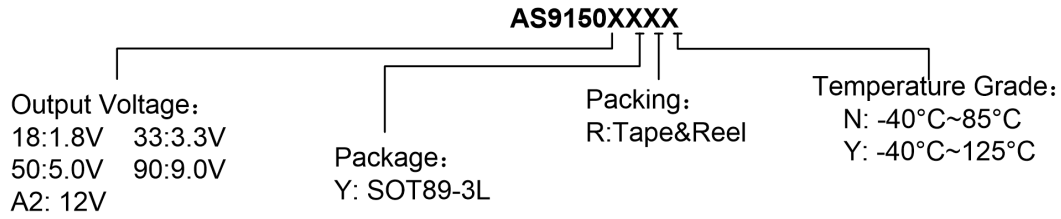
## ● Features

- Output Current Up to 200mA
- Wide Voltage  $V_{IN}$  Range: 2.0V to 55V
- Very Low Quiescent Current at 2.0uA
- Low Dropout voltage of 650mV 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
- Over Temperature Protection
- RoHS and Green Compliant
- SOT89-3L 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

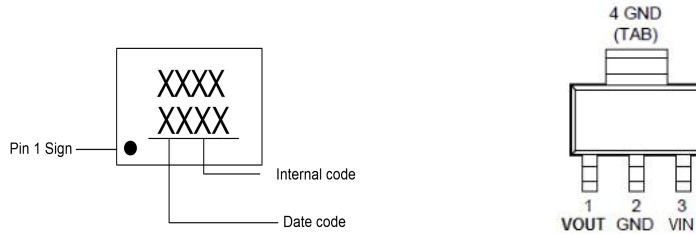
● **Ordering Information**



Part Number	Driver Capability	Package Type	Package Qty	Temperature	Eco Plan
AS9150-XXYRN	200mA	SOT89-3L	7-in reel 1000pcs/reel	-40~85°C	RoHS
AS9150-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	1	O	Output Pin
GND	2	P	Ground
VIN	3	P	Input Power Supply
TAB	4	P	Please Connected to GND.

● **Typical Application Circuit**

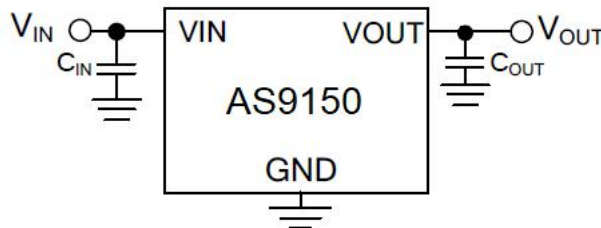
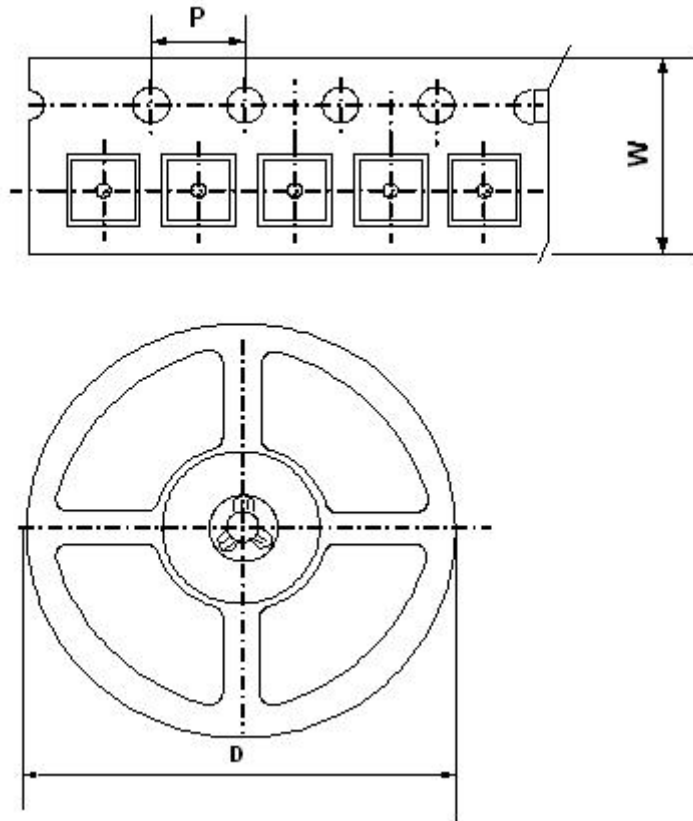


Figure 1, Typical Application Circuit of AS9150 Fixed Output Voltage

■ Packing Information



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

Note: Carrier Tape Dimension, Reel Size and Packing Minimum