

LDO ICs

600mA Low Noise, Soft Start LDO With Output Discharge Function



AS9106

● General Description

The AS9106 is a family of CMOS low dropout (LDO) regulators with a low dropout voltage of 240mV at 600mA designed for noise-sensitive portable device, RF and wireless applications. Quiescent current of AS9106 is as low as 45µA and it works with low-ESR ceramic capacitors, which makes it very suitable for space sensitive handheld applications. The soft-start function will eliminate current surges during start-up and the output discharge function will dissipate the residue output voltage in the capacitor during shut-down.

Other features include 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 space-saving tiny SOT23-5L and DFN1010-4L packages are attractive for hand-held applications. The device is specified over an ambient temperature range of -40°C to 125°C.

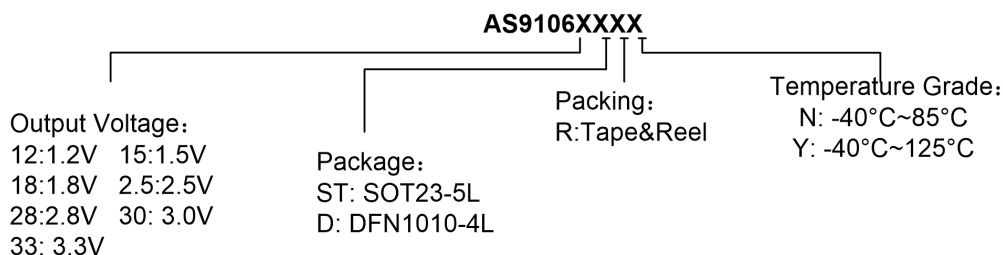
● Features

- Output Current Up to 600mA
- Voltage V_{IN} Range: 2.2V to 5.5V
- V_{out} Fixed 1.2V to 3.3V
- Very Low Quiescent Current at 45µA
- Low Dropout voltage of 340mV at 600mA
- Output Voltage Accuracy at $\pm 2.0\%$
- PSRR 60dB at 1.0KHz/100mA
- Low Output Noise, 50µV_{RMS} from 10Hz to 100KHz
- Current Limit Protection
- Current Fold-back Protection
- Thermal Shutdown Protection
- Less than 1µA Shutdown Current
- Without EMI and Switch Noise
- Low ESR Ceramic Capacitor for Output Stability
- RoHS and Green Compliant
- Small DFN1010-4L & SOT23-5L Packages
- -40°C to +125 °C Temperature Range

● Applications

- PDAs and Digital Camera
- White LED Biasing
- Mobil Handsets
- Tablet PCs and Laptops/Netbooks
- Camcorder Video Light (Movie Light)

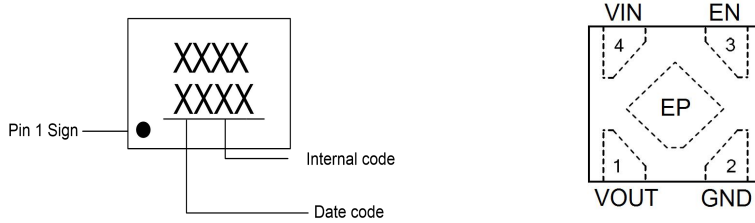
● Ordering Information



Part Number	Driver Capability	Package Type	Package Qty	Temperature	Eco Plan
AS9106-XXSTRN	600mA	SOT23-5L	7-in reel 3000pcs/reel	-40~85°C	RoHS
AS9106-XXDRN	600mA	DFN1010-4L	7-in reel 10000pcs/reel	-40~85°C	RoHS
AS9106-XXSTRY	600mA	SOT23-5L	7-in reel 3000pcs/reel	-40~125°C	RoHS
AS9106-XXDRY	600mA	DFN1010-4L	7-in reel 10000pcs/reel	-40~125°C	RoHS

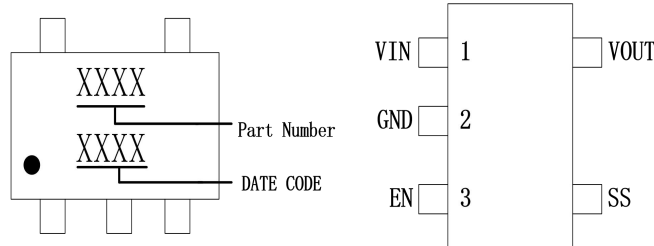
● **Marking Information & Pin Assignment**

DFN1010-4L



Pin Name	Pin No.	I/O	Pin Function
	DFN1010-4L		
VOUT	1	O	Output Pin
GND	2	P	Ground
EN	3	I	Pull this pin high to enable IC, pull this pin low to shutdown IC. Floating this pin will shutdown due to the built-in pull low resistor.
VIN	4	P	Input Power Supply
EP	-	-	Please Connected to GND.

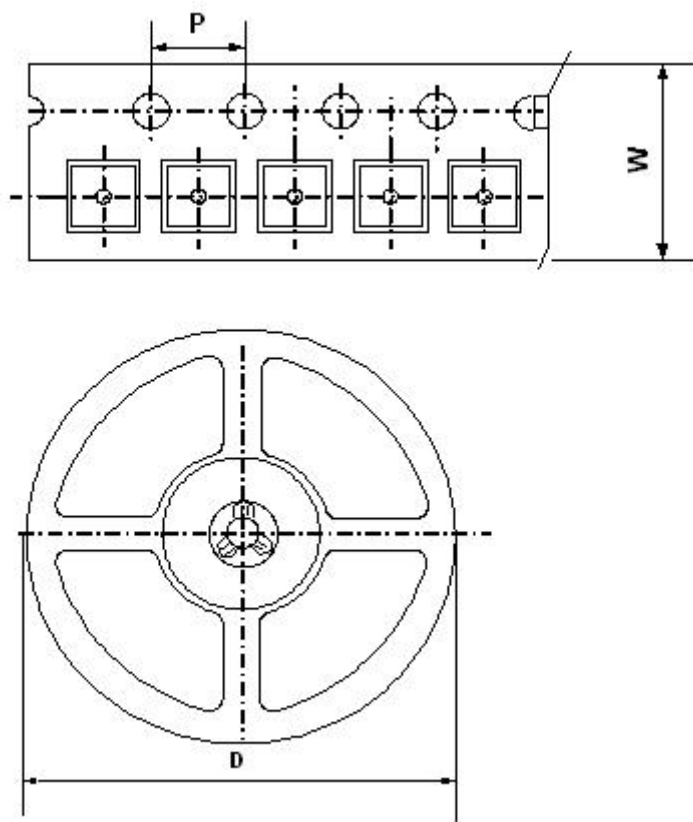
SOT23-5L



Top View

Pin Name	Pin No.	I/O	Pin Function
	SOT23-5L		
VIN	1	P	Input Power Supply.
GND	2	P	Ground.
EN	3	I	Pull this pin high to enable IC, pull this pin low to shutdown IC. Floating this pin will shutdown due to the built-in pull low resistor.
SS	4	I/O	Soft Start pin. Connected Capacitor.
VOUT	5	O	Output Pin.

■ Packing Information



Package Type	Carrier Width(W)	Pitch(P)	Reel Size(D)	Packing Minimum
SOT23-5L	8.0±0.1 mm	4.0±0.1 mm	180±1 mm	3000pcs
DFN1010-4L	8.0±0.1 mm	2.0±0.1 mm	180±1 mm	10000pcs

Note: Carrier Tape Dimension, Reel Size and Packing Minimum