LDO ICs

Micro-Power consumption 40V, 200mA, Low Low-Dropout Voltage Linear Regulator

AS9132

General Description

The AS9132 is a CMOS low dropout, low noise, low power consumption, low quiescent current positive linear regulator with wide input voltage range. The AS9132 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. There is an option of shutdown function by selecting the parts with the EN pin and pulling it low. The off state of AS9132 that consumes less than 0.1uA during shutdown mode.

The device is suitable for portable application such as cellular handsets or PDA. The AS9132 is designed and optimized to work with low cost ceramic capacitors 1.0uF, which consumes less than 0.1μA 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 AS9132 includes a reference bypass pin in order to reduce output noise and a logic control shut-down input.

The space-saving tiny SOT23-5L, SOT23-3L 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 200mA
- Wide Voltage V_{IN} Range: 2.0V to 40V
- Very Low Quiescent Current at 2.0uA
- Low Dropout voltage of 450mV at 100mA/V_{IN}=5V
- Output Voltage Accuracy at ±2.0%
- 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
- DFN1010-4L, SOT23-3L and SOT23-5L Packages
- -40℃ to +125 ℃ 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

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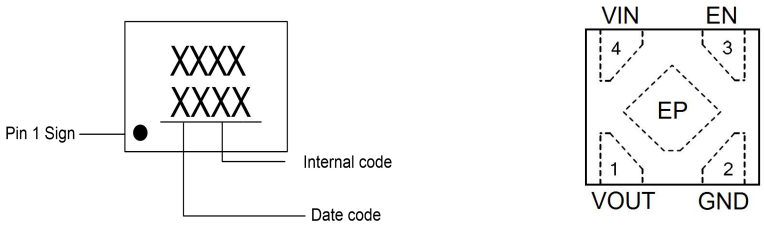
Ordering Information

Part Number	Driver Capability	Package Type	Package Qty	Temperature	Eco Plan
AS9132-XXDRN	200mA	DFN1010-4L	7-in reel 10000pcs/reel	-40～85℃	RoHS
AS9132-XXWRN	200mA	SOT23-5L	7-in reel 3000pcs/reel	-40～85℃	RoHS
AS9132-XXW3RN	200mA	SOT23-3L	7-in reel 3000pcs/reel	-40～85℃	RoHS
AS9132-XXDRY	200mA	DFN1010-4L	7-in reel 10000pcs/reel	-40～125℃	RoHS
AS9132-XXWRY	200mA	SOT23-5L	7-in reel 3000pcs/reel	-40～125℃	RoHS
AS9132-XXW3RY	200mA	SOT23-3L	7-in reel 3000pcs/reel	-40～125℃	RoHS

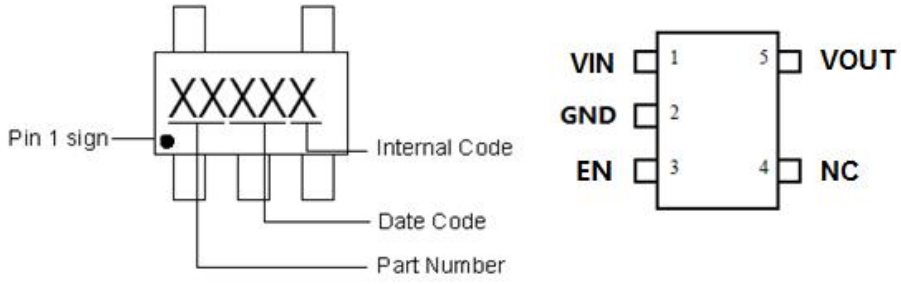
Marking Information & Pin Assignment

DFN1010-4L



Pin Name	Pin No. DFN1010-4L	I/O	Pin Function
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.
VIN	4	P	Input Power Supply
EP	-	-	Please Connected to GND.

SOT23-5L



Pin Name	Pin No. SOT23-5L	I/O	Pin Function
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.
NC	4	-	Not Connected.
VOUT	5	O	Output Pin

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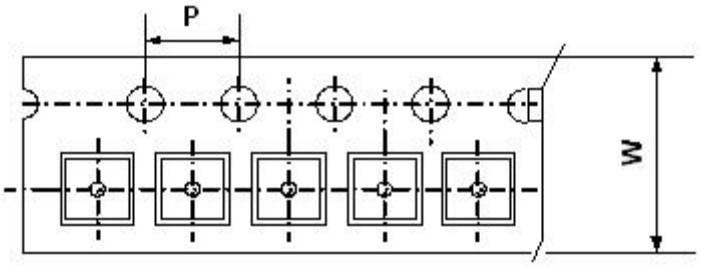
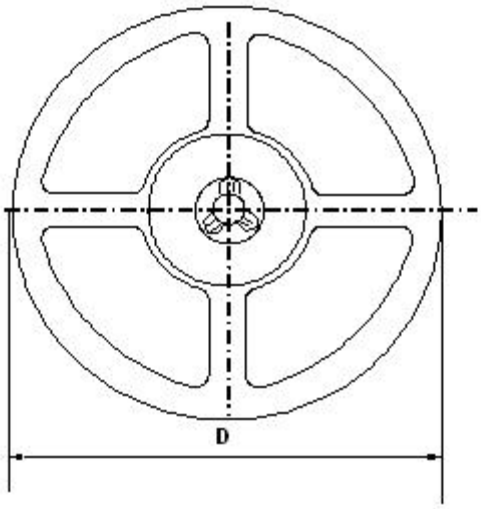
■ Packing Information





Package Type	Carrier Width(W)	Pitch(P)	Reel Size(D)	Packing Minimum
DFN1010-4L	8.0±0.1 mm	2.0±0.1 mm	180±1 mm	10000pcs
SOT23-5L	8.0±0.1 mm	4.0±0.1 mm	180±1 mm	3000pcs
SOT23-3L	8.0±0.1 mm	4.0±0.1 mm	180±1 mm	3000pcs

Note: Carrier Tape Dimension, Reel Size and Packing Minimum

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