



New Product Announcement

AZ1117I

AZ1117I – Industrial Temperature Range 1A Low Dropout Linear Regulator

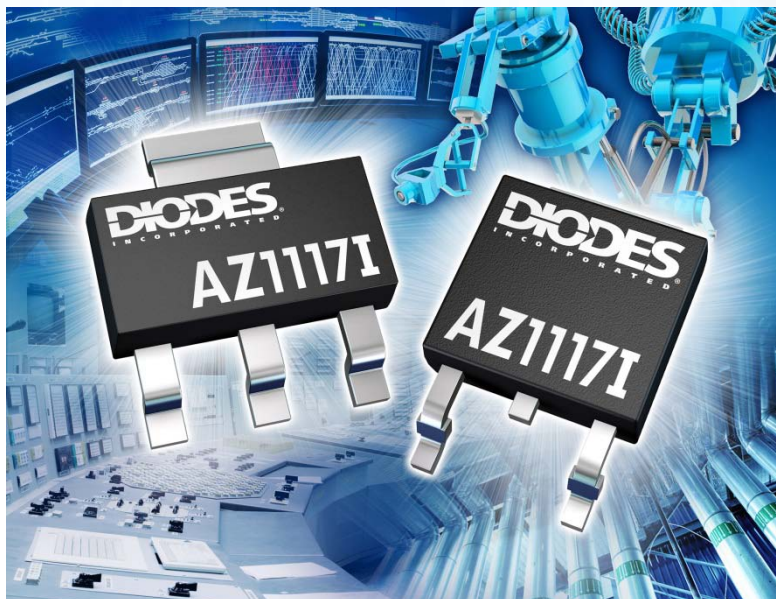
The AZ1117I is a 1A industrial temperature range low dropout three-terminal regulator.

The AZ1117I is optimized for industrial applications operating from 12V or 5V applications where transient response and minimum input voltage overheads are critical. Its trimmed bandgap reference assures tight $\pm 1\%$ output voltage accuracy.

It provides current limit and thermal shutdown, which provides protection against a combination of high current and ambient temperature that would create excessive junction temperature.

The AZ1117I is available in 1.2V, 1.5V, 1.8V, 2.5V, 3.3V, 5.0V fixed output voltage versions and, ADJ output voltage version which sets the output voltage with two external resistors.

The AZ1117I is available in the industry-standard SOT223 and TO252 power packages.



The Diodes Advantage

- **Wide Input Voltage, $V_{out} + 2V$ to 18V**
Provides low drop-out POL solutions from 12V and 5V rails
- **Compatible with Low ESR Ceramic Capacitor**
Design flexibility is further enhanced by the device's compatibility with low ESR ceramic capacitors.
- **High PSRR (70dB @ 1kHz) and Low Noise (0.003% @ 10Hz - 100kHz)**
Suitable for noise sensitive applications
- **1.0% Output Accuracy @ Room Temperature 2% over -40 to +125°C**
Maintains accuracy over extended industrial temperature range
- **Mainstream Package, SOT223 & TO252**
The small package dimensions and thin height meets small footprint and low profile requirements of the latest portable equipment
- **Current Limiting and Thermal Protection**
Improved robustness solution for POL applications

Applications

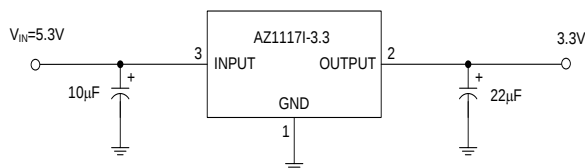
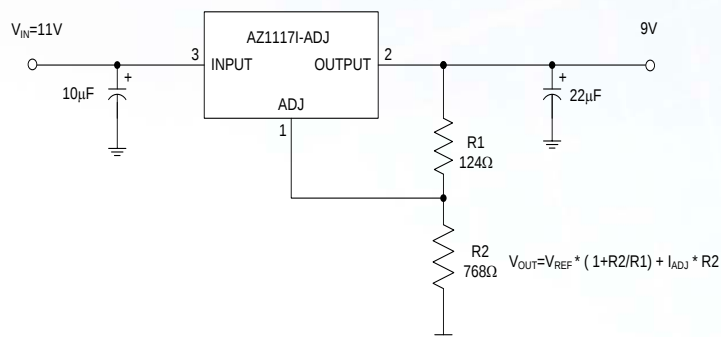
- 12V Industrial Rails
- Industrial Point of Load
- Utility Meters
- Process Automation



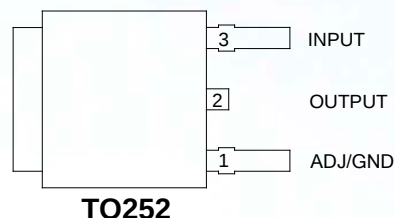
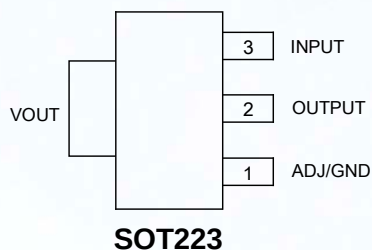
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Typical Application Circuit



Package



Product Portfolio

Part Number	V _{IN} (V)	V _{OUT} (V)		I _{OUT} (mA)	V _{DROP} @ Full Load (mV)	I _Q (mA)	PSRR @1kHz (dB)	Output Accuracy (%)	Ambient Temperature Range (°C)	Market	Package
AZ1117IH	3.2 to 18	1.2, 1.5, 1.8,	Adj	1000	1200	4	70	1	-40 to 125	Industrial	SOT223
AZ1117ID		2.5, 3.3, 5.0									TO252
AZ1117CH	V _O +1.5 to 15	1.2, 1.5, 1.8,	Adj	1000	1400	4	70	1	-20 to 105	Consumer	SOT223
AZ1117CD		2.5, 3.3, 5.0									TO252
ZLDO1117QG	V _O +1.5 to 18	1.2, 1.5, 1.8,	Adj	1000	1200	4	80	1	-40 to 105	Automotive	SOT223
ZLDO1117QK		2.5, 3.3, 5.0									TO252

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