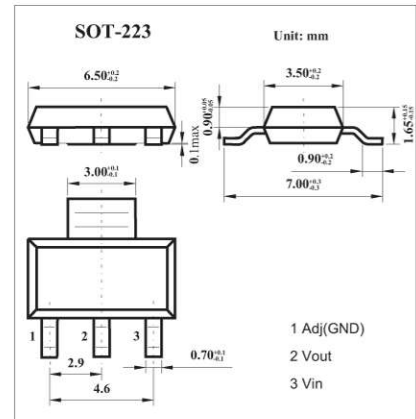


■ Features

- 1.4V maximum dropout at full load current
- Fast transient response
- Output current limiting
- Built-in thermal shutdown
- Good noise rejection
- 3-Terminal Adjustable or Fixed 1.5V, 1.8V, 1.9V, 2.5V, 3.3V, 5.0V

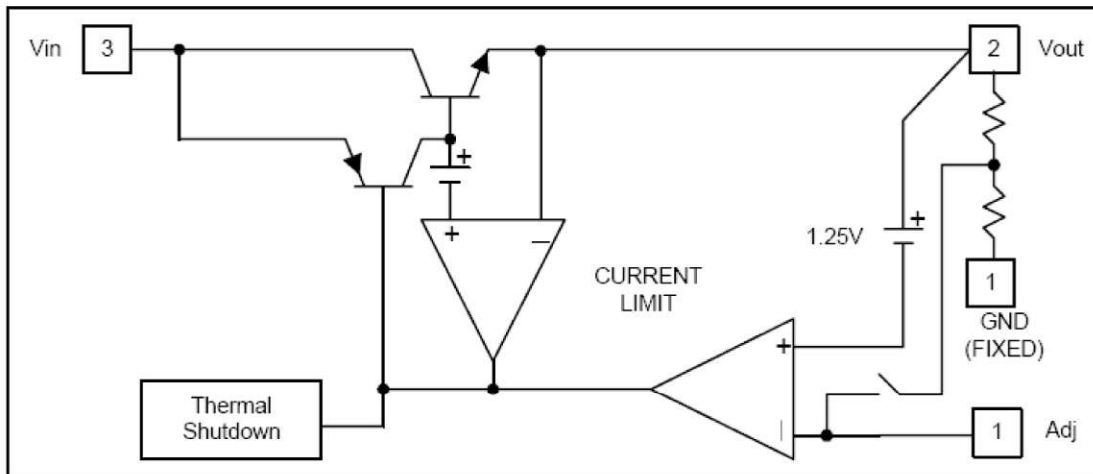


■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|--|-----------------|--------------------|------|
| Maximum Input Voltage | V _{in} | 18 | V |
| Power Dissipation | P _D | Internally Limited | |
| Thermal Resistance Junction-to-Ambient | θ _{JA} | 117 | °C/W |
| Thermal Resistance Junction-to-Case * | θ _{JC} | 15 | °C/W |
| Operating Junction Temperature Range | T _{OP} | 0 to +150 | °C |
| Storage Temperature | T _{ST} | -65 to +150 | °C |

* Control Circuitry/Power Transistor

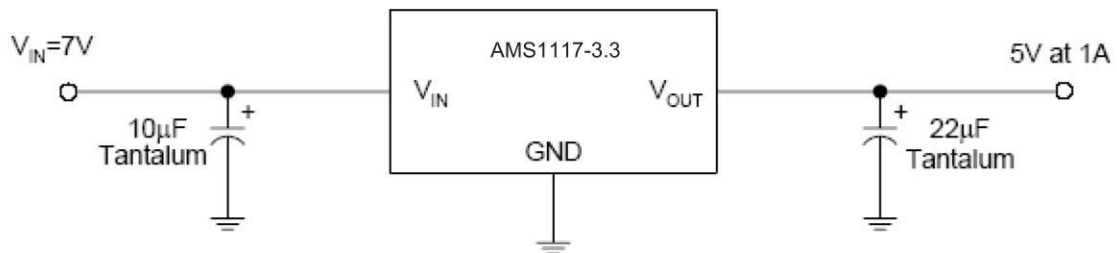
■ Block Diagram



■ Electrical Characteristics Ta = 25°C

| Parameter | Testconditions | Min | Typ | Max | Unit |
|--|---|-------|-------|-------|------|
| Reference Voltage | AMS1117-ADJ T _J =25°C, (V _{IN} -V _{OUT})=1.5V, I _o =10mA | 1.225 | 1.250 | 1.275 | V |
| Output Voltage | AMS1117-1.5 I _{OUT} = 10mA, T _J = 25°C, 3V ≤ V _{IN} ≤ 12V | 1.470 | 1.500 | 1.530 | V |
| | AMS1117-1.8 I _{OUT} = 10mA, T _J = 25°C, 3.3V ≤ V _{IN} ≤ 12V | 1.764 | 1.800 | 1.836 | V |
| | AMS1117-1.9 I _{OUT} = 10mA, T _J = 25°C, 3.3V ≤ V _{IN} ≤ 12V | 1.862 | 1.900 | 1.938 | V |
| | AMS1117-2.5 I _{OUT} = 10mA, T _J = 25°C, 4V ≤ V _{IN} ≤ 12V | 2.450 | 2.500 | 2.550 | V |
| | AMS1117-3.3 I _{OUT} = 10mA, T _J = 25°C, 4.8V ≤ V _{IN} ≤ 12V | 3.235 | 3.300 | 3.365 | V |
| | AMS1117-5.0 I _{OUT} = 10mA, T _J = 25°C, 6.5V ≤ V _{IN} ≤ 12V | 4.900 | 5.000 | 5.100 | V |
| Line Regulation | AMS1117-XXX I _o =10mA, V _{OUT} +1.5V < V _{IN} < 12V, T _J =25°C | | | 0.2 | % |
| Load Regulation | AMS1117-ADJ V _{IN} =3.3V, V _{adj} =0, 0mA < I _o < 1A, T _J =25°C | | | 1 | % |
| | AMS1117-1.5 V _{IN} =3V, 0mA < I _o < 1A, T _J =25°C | | 12 | 15 | mV |
| | AMS1117-1.8 V _{IN} =3.3V, 0mA < I _o < 1A, T _J =25°C | | 15 | 18 | mV |
| | AMS1117-1.9 V _{IN} =3.3V, 0mA < I _o < 1A, T _J =25°C | | 16 | 19 | mV |
| | AMS1117-2.5 V _{IN} =4V, 0mA < I _o < 1A, T _J =25°C | | 20 | 25 | mV |
| | AMS1117-3.3 V _{IN} =5V, 0mA ≤ I _o ≤ 1A, T _J =25°C | | 26 | 33 | mV |
| | AMS1117-5.0 V _{IN} =8V, 0mA ≤ I _o ≤ 1A, T _J =25°C | | 40 | 50 | mV |
| Dropout Voltage (V _{IN} -V _{OUT}) | AMS1117-XXX I _{OUT} = 1A, ΔV _{OUT} =0.1%V _{OUT} | | 1.3 | 1.4 | V |
| Current Limit | AMS1117-XXX (V _{IN} -V _{OUT}) = 5V | 1.1 | | | A |
| Minimum Load Current | AMS1117-XXX 0°C ≤ T _J ≤ 125°C | | 5 | 10 | mA |
| Thermal Regulation | T _A =25°C, 30ms pulse | | 0.008 | 0.04 | %/W |
| Ripple Rejection | F=120Hz, C _{OUT} =25μF Tantalum, I _{OUT} =1A | | | | |
| | AMS1117-XXX V _{IN} =V _{OUT} +3V | | 60 | 70 | dB |
| Temperature Stability | I _o =10mA | | 0.5 | | % |

Typical Applications



单击下面可查看定价，库存，交付和生命周期等信息

[>>SHIKUES\(时科\)](#)