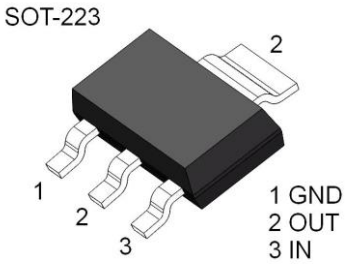
General Description

The AZ1117H-3.3TRG1-CN positive fixed regulators are designed to provide 1A with high efficiency. All internal circuitry isdesigned to operate down to 1.4V input to output differential. On-chip trimming adjusts the reference voltage to 1%. Current limit the typical value of 1.5A allows to minimize the stress on both the regulator and the power source circuitry under overload conditions.



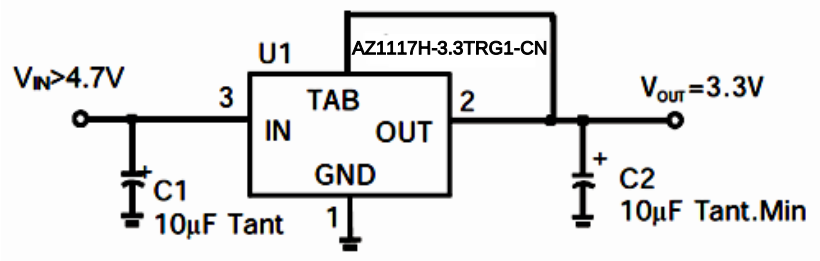
Features

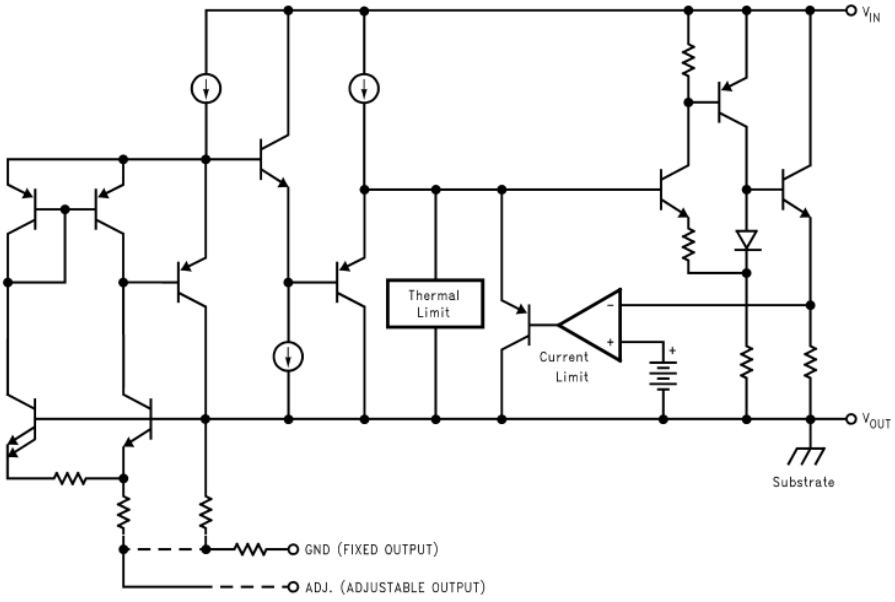
- Available in 3.3V
- Space Saving SOT-223 Package
- Current Limiting and Thermal Protection
- Output Current 1A
- Temperature Range 0˚C to 125˚C
- Line Regulation 0.2% (Max)
- Load Regulation 0.4% (Max)

Applications

- High Efficiency Linear Regulators
- Post Regulators for Switching Supplies
- Adjustable Power Supply

Typical Application





Absolute Maximum Ratings

Parameter	Symbol	Maximum	Unit
Power Dissipation	P_D	Internally Limited	W
Input Voltage	V_{IN}	13	V
Voltage Difference	V_{IN} –V_{OUT}	10	V
Operating Junction Temperature Range	T_J	-40～＋125	℃
Storage Temperature	T_{STG}	-65～＋150	℃
Lead Temperature (Soldering, 10 sec)	T_{LEAD}	300	℃
Minimum ESD Rating (HBM)	V_{ESD}	2	kV

Electrical Characteristics

Electrical Characteristics at I_{LOAD} = 0 mA and T_J = +25℃ unless otherwise specif ied.

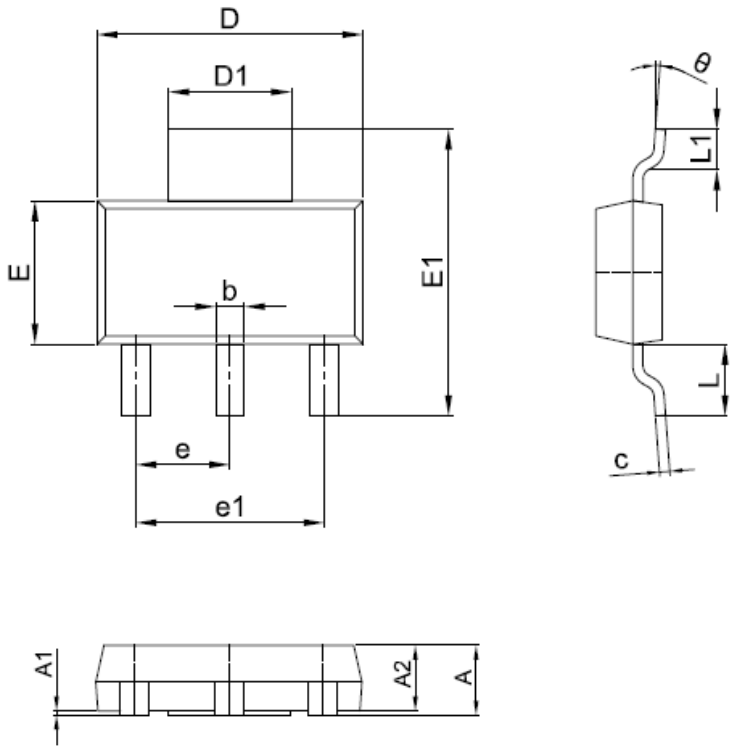
Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Output Voltage(Note 1)	V_{OUT}	I_{OUT}=10mA, V_{IN}=5V T_J=25˚C 0 ≤I_{OUT}≤1A, 4.75V≤ V_{IN}≤10V	3.250 3.234	3.300 3.300	3.350 3.366	V V
Line Regulation (Note 1)	ΔV_{OUT}	I_{OUT} = 0mA, 4.75V≤ V_{IN}≤15V		1	6	mV
		V_{IN}=4.75V, 0≤I_{OUT} ≤1A		1	12	mV
Dropout Voltage (Note 1,3)	V_{IN}-V_{OUT}	I_{OUT} =1.0A		1.30	1.40	V
Current Limit	L_{LIMIT}	V_{IN} -V_{OUT} = 1.5V	1	1.5	2	A
Quiescent Current	I_Q	V_{IN}≤15V			10	mA
Ripple Regulation		V_{IN} -V_{OUT} = 1.5V,I_{OUT} = 10mA	60			dB
Adjust Pin Current Change		10 mA ≤ I_{OUT} ≤1A, 1.4V ≤ V_{IN}-V_{OUT} ≤ 10V		35	60	μA

Note 1: Low duty pulse testing with Kelvin connections required.

Note 2: 120Hz input ripple

Note 3: ΔV_{OUT} =1%

Package Dimensions (Unit:mm)



Symbol	Min.	Typ	Max.
A	1.50	1.65	1.80
A1	0.00	0.05	0.10
A2	1.50	1.60	1.70
b	0.65	0.70	0.75
c	0.20	0.25	0.30
D	6.40	6.50	6.60
D1	2.90	3.00	3.10
E	3.30	3.50	3.70
E1	6.85	7.00	7.15
e	2.20	2.30	2.40
e1	4.40	4.60	4.80
L	1.65	1.75	1.85
L1	0.90	1.00	1.15
θ	0°	5°	10°

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