1A LDO Regulator

General Description

The iD1117 series of positive adjustable and fixed regulators are designed to provide 1A with high efficiency. All internal circuitry is designed 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

- Adjustable or Fixed Output
- Output Current of 1A
- Low Dropout, 1.3 V typ. at 1A Output Current
- 0.04% Line Regulation
- 0.2 % Load Regulation
- 100% Thermal Limit Burn-In
- Fast Transient Response

Applications

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

Ordering Information

iD1117 - □□ □□□ □

Package
A25:SOT-89-3
A26:SOT-89-3
A75:SOT-223

Taping
R: Tape and Reel

Output Voltage	Voltage Code
1.2	12
1.5	15
1.8	18
2.5	25
2.85	O5
3.3	33
5.0	50
Adjustable	AD

Marking Information

For marking information, please contact our sales representative directly or through an iDesyn distributor around your location.

Typical Application Circuit

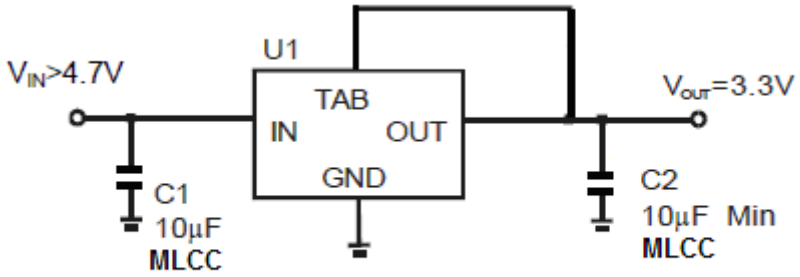
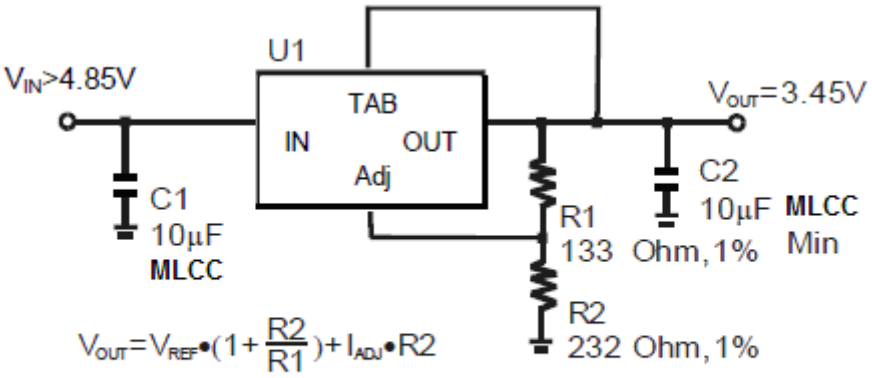


Figure1. Fixed Operation



Notes:
1) C1 needed if device is far from filter capacitors
2) C2 minimum value required for stability

Figure2. Adjustable Operation

Absolute Maximum Ratings (Note 1)

Supply Voltage V_{IN}	20V
Power Dissipation, P_D @ T_A=25˚C	
SOT-89-3	570mW
SOT-223	1050mW
Thermal Resistance, θja	
SOT-89-3	175˚C/W
SOT-223	95˚C/W
Lead Temperature	260 ˚C
Storage Temperature	-65˚C to 150˚C
ESD Susceptibility	
HBM (Human Body Mode)	2kV
MM (Machine Mode)	200V

Recommended Operating Conditions

Junction Temperature	-40˚C to 125˚C
Ambient Operating Temperature	-40˚C to 85˚C