



ACE5172C

2A Low Consumption Linear Regulator

Description

ACE5172C is a series of low power consumption, low dropout voltage regulator with a typical dropout voltage of 1.0V at 2A load current.

ACE5172C can provide output value in the range of 1.2V~5.0V in 0.1V steps. It also can customize on command.

Other than every voltage version can be used as an adjustable voltage version, with which desired voltage can be achieved by setting the values of two external resistors of the application circuitry.

ACE5172C has well load transient response and good temperature characteristic, and it uses trimming technique to guarantee output voltage accuracy within $\pm 2\%$.

ACE5172C series is available in standard packages of SOT-223 and TO-252.

Features

- Low Power Consumption: 3.0uA (Typ.)
- Maximum output current : 2A
- Maximum input voltage: 18V
- Line regulation: 0.2% (Typical)
- Output Voltage Range: 1.2V~5.0V
- Highly Accurate: $\pm 2\%$ ($\pm 1\%$ customized)
- Typical Dropout Voltage: 850mV @ 1.5A ($V_{out}=3.3V$)
- Operation environment Temperature: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$

Applications

- Battery Charger
- Battery Powered equipment
- Post Regulators for Switching Supplies
- Reference Voltage Source Regulation after Switching Power

Absolute Maximum Rating

Parameter		Value
Max Input Voltage		20V
Operating Junction Temperature(T_j)		125 $^{\circ}\text{C}$
Ambient Temperature(T_a)		-40~85 $^{\circ}\text{C}$
Package Thermal Resistance	SOT-223	20 $^{\circ}\text{C}/\text{W}$
	TO-252	12 $^{\circ}\text{C}/\text{W}$
Storage Temperature(T_s)		- 40 to 150 $^{\circ}\text{C}$
Lead Temperature & Time		260 $^{\circ}\text{C}$, 10S

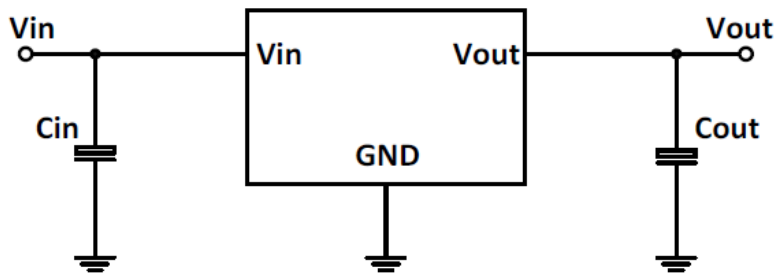
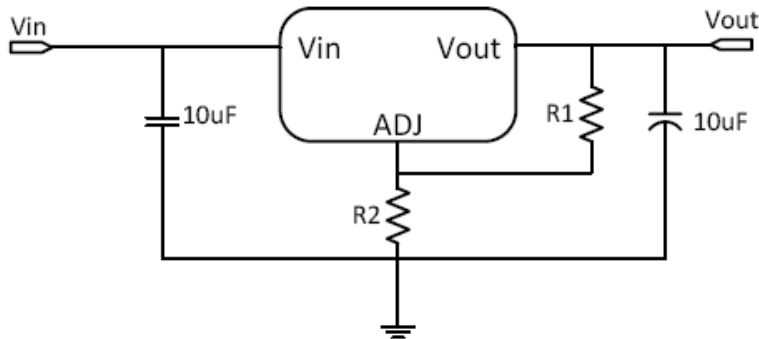
Note: Exceed these limits to damage to the device. Exposure to absolute maximum rating conditions may affect device reliability.



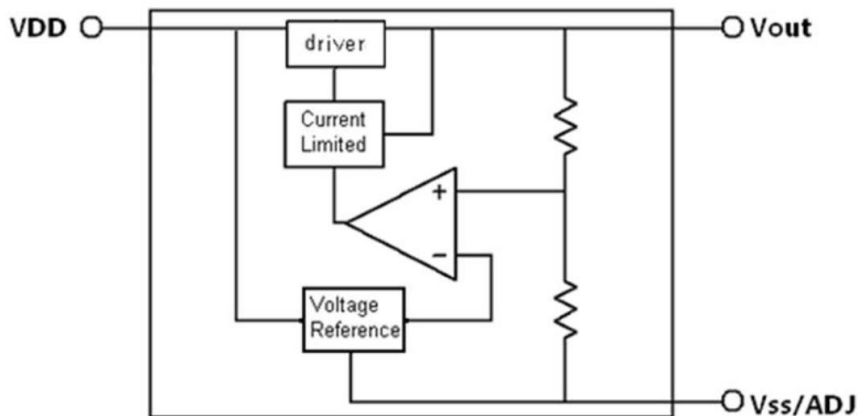
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Typical Application



Block Diagram





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Notes

ACE does not assume any responsibility for use as critical components in life support devices or systems without the express written approval of the president and general counsel of ACE Technology Co., LTD. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

ACE Technology Co., LTD.
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