



ACE523C

250mA Low consumption Linear Regulator

Description

ACE523C series is a group of positive voltage output, low power consumption, low dropout voltage, three terminal regulator. It can provide 200mA output current when input / output voltage differential drops to 418mV ($V_{out}=3.3V$), and it also provides fold back short-circuit protection and output current limit function. The very low power consumption of ACE523C ($I_q=3\mu A$) can greatly improve natural life of batteries.

ACE523C can provide output value in the range of 1.2V~5.0V in 0.1V steps. It also can customize on command.

ACE523C includes high accuracy voltage reference, error amplifier, and current limit circuit and output driver module.

ACE523C has well load transient response and good temperature characteristic, And it uses trimming technique to guarantee output voltage accuracy within $\pm 2\%$.

Features

- Low Power Consumption: 3 μA (Typ.)
- Maximum Output Current: 250mA
- Small Dropout Voltage
211mV@100mA ($V_{out}=3.3V$)
418mV@200mA ($V_{out}=3.3V$)
- Input Voltage Range: 2.5V~16V
- Output Voltage Range: 1.2V~5.0V (customized on command in 0.1V steps)
- Highly Accurate: $\pm 2\%$ ($\pm 1\%$ customized)
- Output Current Limit : 500Ma
- Foldback Short-circuit Current : 85mA

Application

- Battery Powered equipment
- Power Management of MP3. PDA. DSC. Mouse. PS2 Games
- Reference Voltage Source Regulation after Switching Power



ACE523C

250mA Low consumption Linear Regulator

Absolute Maximum Ratings

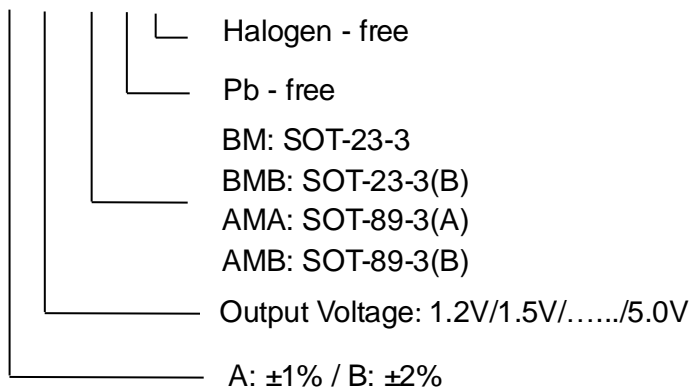
Parameter	Symbol	Max	Unit
Max Input Voltage		20	V
Power Dissipation	SOT-23-3	250	mW
	SOT-89-3	500	
Operating Junction temperature	T _J	125	°C
Storage temperature	T _S	- 45 ~ 150	°C
Ambient Temperature	T _A	-40 ~ 85	°C
Lead Temperature & Time		260°C , 10s	

Note: Exceed these limits to damage to the device.

Exposure to absolute maximum rating conditions may affect device reliability.

Ordering information

ACE523CX XX XX + H



Recommended Work Conditions

Item	Min	Max	Unit
Input Voltage Range		16	V
Ambient Temperature	-40	85	°C



ACE523C

250mA Low consumption Linear Regulator

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.
<http://www.ace-ele.com/>