



ACE507C

200mA Low Consumption Linear Regulator

Description

ACE507C series is a group of positive voltage output, low power consumption, low dropout voltage, three terminal regulators. It can provide 200mA output current when input / output voltage differential drops to 430mV $V_{OUT}=2.8V$, The very low power consumption of ACE507C($I_q=1.0\mu A$)can greatly improve natural life of batteries.

ACE507C can provide output value in the range of 1.1V~5.5V in 0.1V steps. It also can be customized on command.

ACE507C includes high accuracy voltage reference, error amplifier, current limit circuit and output driver module.

ACE507C 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: 1.0uA (Typ)
- Maximum Output Current: 200mA
- Small Dropout Voltage
210mV@100mA ($V_{out}=2.8V$)
430mV@200mA ($V_{out}=2.8V$)
- Input Voltage Range: 1.5V~6V
- Output Voltage Range: 1.1V~5.5V (customized on command in 0.1V steps)
- High Accurate: $\pm 2\%$ ($\pm 1\%$ customized)
- Output Current Limit

Application

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



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Absolute Maximum Ratings

Parameter		Value
Max input voltage		8V
Operating junction temperature (T_J)		125°C
Ambient temperature (T_A)		-40°C to 85°C
Power dissipation	SOT-23-3	250mW
	TSOT-23-3	250mW
	SOT-23-5	400mW
	SOT-89-3	500mW
	TO-92	500mW
Package thermal resistance (θ_{JA})	SOT-23-3	220°C/W
	TSOT-23-3	250°C/W
	SOT-23-5	200°C/W
	SOT-89-3	90°C/W
	TO-92	117°C/W
Storage temperature (T_S)		-40°C to 150°C
Lead temperature & time		260°C, 10S
ESD (HBM)		>2000V

Note: Exceed these limits to damage to the device.

Exposure to absolute maximum rating conditions may affect device reliability.

Recommended Work Conditions

Item	Min	Max	Unit
Input Voltage Range		6	V
Ambient Temperature	-40	85	°C

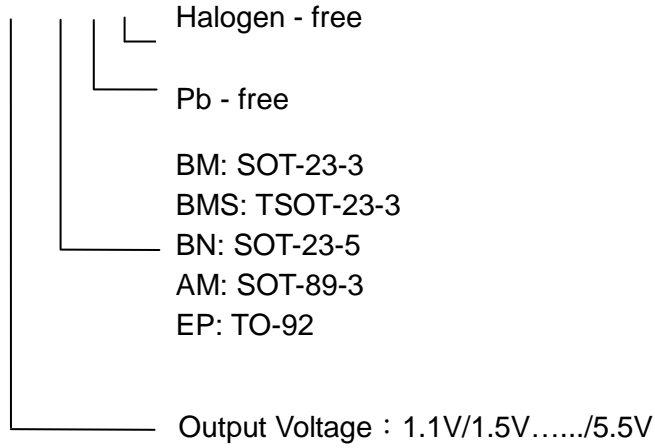


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Ordering information

ACE507C XX XX + H





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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.

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