



ACE519C

500mA High PSRR, Linear Regulator

Description

ACE519C series are a group of positive voltage output, low power consumption, low dropout voltage regulators. It can provide foldback short-circuit protection and output current limit function.

ACE519C can provide output value in the range of 1.0V~4.5V every 0.1V step. It also can be customized on command. ACE519C can also work under a wide input voltage ranging from 2V to 6V.

ACE519C includes high accuracy voltage reference, error amplifier, current limit circuit and output driver module.

ACE519C has excellent load and line transient response and good temperature characteristics, which can assure the stability of chip and power system. And it uses trimming technique to guarantee output voltage accuracy within $\pm 2\%$.

ACE519C is available in SOT-23-3, SOT-23-5, SC-70-5 and DFN1*1-4 packages which are lead free.

Features

- Output voltage range: 1.0V~4.5V (customized on command every 0.1V step)
- Low power consumption: 35uA (Typ.)
- Low output noise (47uVRMS)
- Shutdown mode: 0.1uA
- Low dropout voltage: 300mV@300mA (Typ.)
- High ripple rejection:70dB@1KHz (Typ.)
- Low temperature coefficient: $\pm 100\text{ppm}/^\circ\text{C}$
- Excellent line regulation: 0.05%/V
- Build-in 1.5K discharge resistor when CE low
- Highly accurate: $\pm 2\%$
- Output current limit
- Fold-back output short circuit protection

Application

- Power source for cellular phones and various kind of PCSs
- Battery Powered equipment
- Power Management of MP3, PDA, DSC, Mouse, PS2 Games
- Voltage Reference
- Regulation after Switching Power



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Absolute Maximum Ratings

Parameter		Value
Max Input Voltage		8V
Operating Junction Temperature (Tj)		125°C
Output Current		500mA
Ambient Temperature (Ta)		-40°C–85°C
Power Dissipation	SOT-23-3	250mW
	SOT-23-5	250mW
	SC-70-5	250mW
	DFN1*1-4	600mW
Storage Temperature (Ts)		-40°C -150°C
Lead Temperature & Time		260°C,10S

Note:

Heat Sink Area of PCB for DFN1x1-4 is recommended at least 2.5mmx4mm.

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	2	7	V
Ambient Temperature	-40	85	°C

The operation ambient temperature range is verified on several test samples. Not a test condition for volume production whose test is only performed under 25°C.

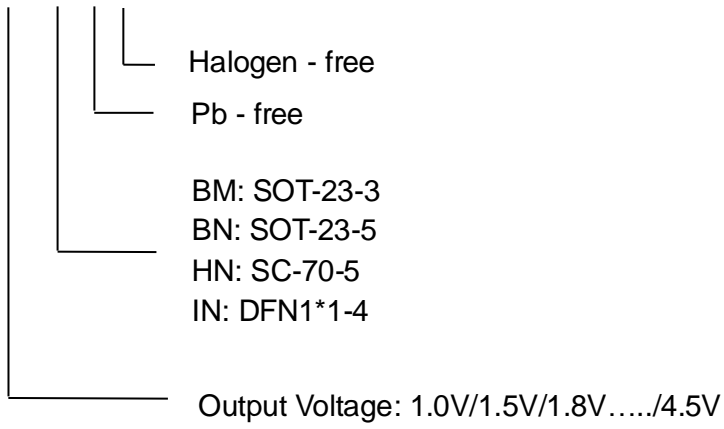


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Ordering information

ACE519C 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.

ACE Technology Co., LTD.
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