



ACE515CC

300mA High PSRR, Linear Regulator, w. Output Discharge

Description

ACE515CC series is a group of positive voltage output, low power consumption, low dropout voltage regulator.

ACE515CC can provide output value in the range of 0.9V~3.6V every 0.1V step. It also can be customized on command.

ACE515CC includes high accuracy voltage reference, error amplifier, current limit circuit and output driver module with discharge capability.

ACE515CC 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 $\pm 2\%$.

ACE515CC is available in SC70-5, SOT23-3, TSOT-23-3, SOT23-5 and DFN1x1-4 packages which are lead free.

Features

- Low power consumption: 60uA (Typ.)
- Standby mode: 0.1uA
- Low dropout voltage:
195mV @ $I_{OUT}=300mA$, $V_{OUT}=3.3V$ (Typ.)
- High PSRR: 70dB@1KHz (Typ.)
- Low temperature coefficient: $\pm 100ppm/^{\circ}C$
- Excellent line regulation: 0.05%/V
- Output voltage range: 0.9V~3.6V
- Highly accurate: $\pm 2\%$
- Build-in chip enable and discharge circuit
- Thermal shutdown
- Overcurrent protection

Application

- Power source for cellular phones and various kind of PCSs
- Battery powered equipment
- Power management of MP3, PDA, DSC, mouse, PS2 games
- Reference voltage source
- Regulation after switching power



ACE515CC

300mA High PSRR, Linear Regulator, w. Output Discharge

Absolute Maximum Ratings

Parameter	Value	
Max Input Voltage	8V	
Operating Junction Temperature (T _J)	125°C	
Output Current	300mA	
Power Dissipation	SOT-23-3	500mW
	TSOT-23-3	500mW
	SOT-23-5	600mW
	SC-70-5	400mW
	DFN1*1-4	500mW
Package thermal resistance (θ _{JA})	SOT-23-3	220°C / W
	TSOT-23-3	250°C / W
	SOT23-5	200°C / W
	SC70-5	300°C / W
	DFN1x1-4	250°C / W
Storage temperature (T _S)	-40°C -150°C	
Lead temperature & time	260°C,10S	
ESD (HBM)	>2000V	

Note:

1. Package Thermal Resistance value can be affected by PCB design, outside radiator, ambient airflow, operating power, it just shows for reference.
2. Exceed these limits to damage to the device.
3. Exposure to absolute maximum rating conditions may affect device reliability.

Recommended Work Conditions

Item	Min	Max.	Unit
Input Voltage Range	1.5 ⁽¹⁾	6	V
Ambient Temperature	-40	85	°C

Note:

1. The output current capability depends on the input voltage and the minimum dropout voltage.

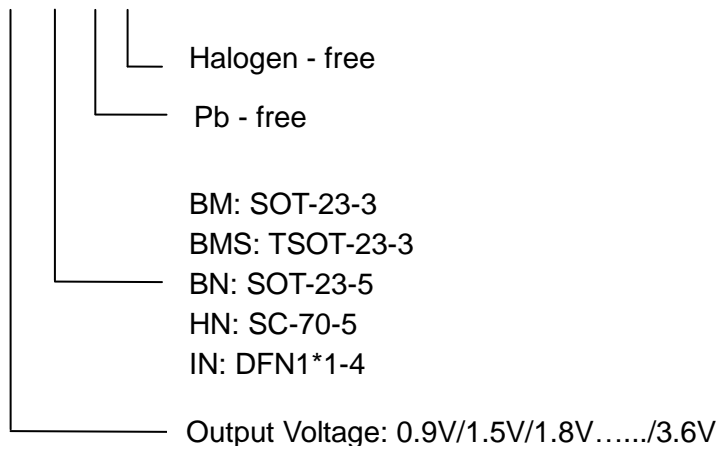


ACE515CC

300mA High PSRR, Linear Regulator, w. Output Discharge

Ordering information

ACE515CC XX XX + H





ACE515CC

300mA High PSRR, Linear Regulator, w. Output Discharge

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/>