



ACE56216P

18V, 500mA, High PSRR, Low Power

Description

The ACE56216P series is a set of three-terminal, low power, high voltage regulators implemented in CMOS technology. The series features extremely low quiescent current which is typically 2.0 μ A. They allow input voltages as high as 18V. The device provides large current with a significantly small dropout voltage.

The ACE56216P consists of a high-precision voltage reference, an error correction circuit, an over temperature protection circuit, and a current limited output driver. They are available with several fixed output voltages ranging from 1.8V to 5.5V. CMOS technology ensures low dropout voltage and low current consumption.

The ACE56216P regulators are available in standard SOT89- 3 and SOT23-3 packages. Standard products are Pb- free and Halogen-free.

Features

- Input voltage: 3V~18V
- Output range: 1.8V~5.5V
- Output current: 500mA (Within Max Power Dissipation)
- Dropout voltage: 140mV @ $V_{OUT}=3.3V$, $I_{OUT}=100mA$
- Quiescent current: 2 μ A Typ.
- PSRR: 70dB @10KHz
- Fast load transient response
- Good line regulation: 0.01%/V
- Good load regulation:
- 5mV@1mA $\leq I_o \leq$ 50mA
- Soft start

Application

- Battery powered equipment
- Voltage regulator for microprocessor
- Voltage regulator for LAN cards
- Wireless communication equipment
- Audio/Video equipment



ACE56216P

18V, 500mA, High PSRR, Low Power

Absolute Maximum Ratings ^(Note)

Symbol	Items	Value	Unit	
V _{IN}	Input Voltage	-0.3 to 20	V	
V _{OUT}	Output Voltage	-0.3 to 6	V	
P _{DMAX}	Power Dissipation	OTP Limited	/	
R _{θJA}	Thermal Resistance	SOT89-3	200	°C/W
		SOT23-3	240	°C/W
T _J	Junction Temperature	-40 to 125	°C	
T _{STG}	Storage Temperature	-55 to 150	°C	
T _{SOLDER}	Package Lead Soldering Temperature	260°C, 10s		
HBM	Human Body Mode ESD Level	5.5	KV	

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

Recommended Operation Range

Symbol	Items	Value	Unit
V _{IN}	Supply Voltage	3 to 18	V
Topj	Operating Junction Temperature	0 to 125	°C
Topa	Operating Ambient Temperature	-40 to 85	°C
C _{IN}	Input Capacitor	0.1 to 10	μF
C _O	Output Capacitor	1 to 10	μF

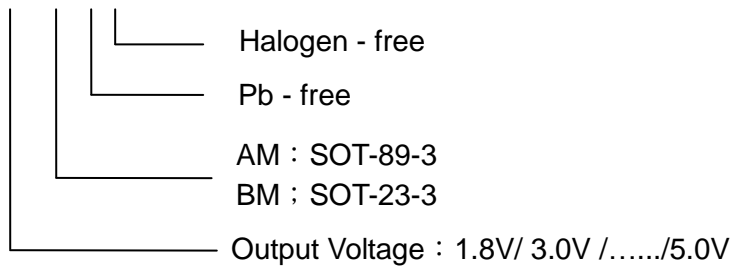


ACE56216P

18V, 500mA, High PSRR, Low Power

Ordering information

ACE56216PXX XX +H





ACE56216P

18V, 500mA, High PSRR, Low Power

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/>