



ACE56613P

60V Low Quiescent Current, High Reliability LDO

Description

The ACE56613P series is a high accuracy, high input voltage low quiescent current, high speed, and low dropout linear regulator with high ripple rejection.

The input voltage is up to 60V and load current is 150mA at $V_{OUT} = 5V$ & $V_{IN} = 7V$. The ACE56613P offers over-current limit, soft start and over temperature protection to ensure the device working in acceptable conditions.

The ACE56613P regulators is available in standard SOT89-3, SOT23-5, SOT23-3 and TO-252 packages. Standard products are Pb-free and Halogen-free.

Features

- Input voltage: 4.0V~60V
- Output voltage: 2.5V~5.5V
- Output accuracy: $\leq \pm 2\%$, Please see ordering information
- PSRR: 80dB @ 100Hz
- Dropout voltage: 700mV @ 3.3V/100mA
- Quiescent current: 1.8 μ A @ $V_{IN} = 12V$ (Typ.)
- ESD HBM: $\pm 7KV$
- Recommend capacitor: 10 μ F

Application

- Smart electric meter
- In-car entertainment
- Electric bicycle



ACE56613P

60V Low Quiescent Current, High Reliability LDO

Absolute Maximum Ratings ^(Note)

Symbol	Items	Value	Unit	
V_{IN}	Input Voltage	-0.3 to 70	V	
V_{OUT}	Output Voltage	-0.3 to 7	V	
P_{DMAX}	Power Dissipation	OTP Limited	/	
$R_{\theta JA}$	Junction to Ambient Thermal Resistance	SOT-23-3	220	$^{\circ}C/W$
		SOT-23-5	200	$^{\circ}C/W$
		SOT-89-3	75	$^{\circ}C/W$
		TO-252	70	$^{\circ}C/W$
T_J	Junction Temperature	-40 to 150	$^{\circ}C$	
T_{STG}	Storage Temperature	-55 to 150	$^{\circ}C$	
T_{SOLDER}	Package Lead Soldering Temperature (10S)	260	$^{\circ}C$	
ESD HBM	Human Body Mode	± 7	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	4 to 60	V
$R_{\theta JA}$	Thermal Resistance on Application PCB	45	$^{\circ}C/W$
T_A	Operating Ambient Temperature	0 to 85	$^{\circ}C$

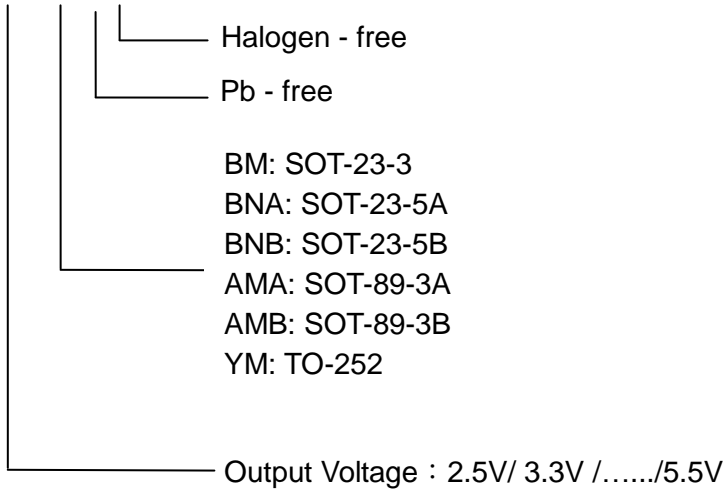


ACE56613P

60V Low Quiescent Current, High Reliability LDO

Ordering information

ACE56613P XX XX +H





ACE56613P

60V Low Quiescent Current, High Reliability LDO

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/>