



ACE51303X

5uA Low Iq, 40V 150mA LDO

Description

ACE51303X series is a group of positive voltage output 3-terminal linear regulator, capable of delivering 150mA current and working under 40V input voltage. It also features extremely low standby current which is only 5uA, while still keeps very fast load transient response capability. With the extremely low 5uA standby current, ACE51303X can greatly improve natural life of batteries. ACE51303X includes high accuracy voltage reference, error amplifier, and current limit circuit and output driver module. ACE51303X has well load transient response and good temperature characteristic. And it uses trimming technique to guarantee output voltage accuracy within $\pm 2\%$. ACE51303X can provide 3.0V, 3.3V, 3.6V, 4.4V, 5.0V, 9.0V, 12V output value. It also can be customized on command. ACE51303X is housed in 2 different types of packages, which are TSOT-23-3 and SOT-89-3.

Features

- Low Power Consumption: 5.0uA (Typ.)
- Maximum Output Current: 150mA
- Input Voltage Range: 3V~40V
- Output Voltage Range: 3.0V, 3.3V, 3.6V, 4.4V, 5.0V, 9.0V, 12V
- Small Dropout Voltage
- 740mV@100mA (VOUT=3.3V)
- 1300mV@150mA (VOUT=3.3V)
- Highly Accuracy: $\pm 2\%$
- Current Limit and Short Protection
- Over Temperature Protection

Application

- Smart Home Application
- Battery Powered equipment
- Toys
- Wearables



ACE51303X

5uA Low Iq, 40V 150mA LDO

Absolute Maximum Ratings

Parameter	Value	
$V_{IN}^{(1)}$	42V	
Out Voltage	-0.3V to 20V	
Operating Junction Temperature (Tj)	125 °C	
Operating Temperature Range	-40°C to 85°C	
Storage Temperature Range	-55°C to 125°C	
Continuous Power Dissipation (TA = 25°C)	TSOT-23-3	0.4W
	SOT-89-3	0.5W
ESD Human body mode	2KV	
Lead Temperature & Time	260°C, 10 Sec	

Note: (1) Exceeding these ratings may damage the device.

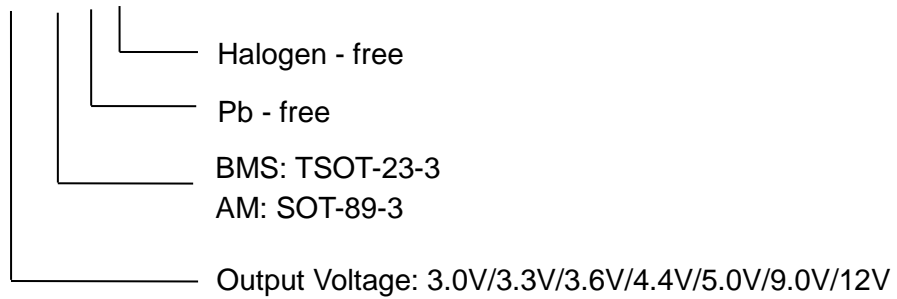


ACE51303X

5uA Low Iq, 40V 150mA LDO

Ordering information

ACE51303X XX XX + H





ACE51303X

5uA Low Iq, 40V 150mA 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.