ACE51461U

300mA, Low Power Consumption, Wide Input Voltage Range Linear Regulator

Description

The ACE51461U series are a group of positive voltage output, high precision and low power consumption voltage regulators. The maximum input voltage is 24V. The output voltages are available in 100mV steps within a range of 2.5V to 5V. It can also be customized on request.

The ACE51461U series have very low power consumption (I_Q=3.5μA) which can greatly extend battery life.

The ACE51461U series are available in SOT23-5 & SOT89-5 packages.

Features

- Maximum Input Voltage: 24V
- Low Quiescent Current: 3.5μA (Typ.)
- Maximum Output Current: 300mA
- Low Dropout:
  250mV@100mA (V_{OUT}=3.3V)
  500mV@200mA (V_{OUT}=3.3V)
- Low Temperature Coefficient: ±150ppm/°C
- Output Current Limit: 400mA@ V_{OUT}=3.3V

Application

- Battery-Powered Equipment
- Power Management of MP3, PDA, DSC, Mouse, PS2 Games
- Reference Voltage Source
- Hand-Hold Equipment

Absolute Maximum Rating (Note 1)

Parameter		Symbol	Value	Unit
V_{IN}		Max Input Voltage	28	V
Power dissipation	SOT-23-5	P_D	300	mW
	SOT-89-5	P_D	1200	mW
Operating Junction Temperature		T_J	125	°C
Ambient Temperature		T_A	-40 to 85	°C
Storage Temperature Range		T_{STG}	-40 to 150	°C
Lead Temperature for Soldering 10 Seconds		T_L	260	°C

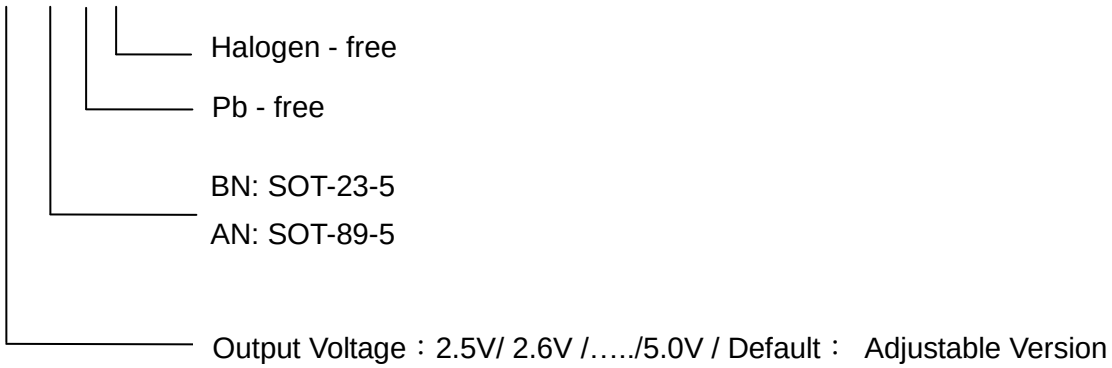
Note 1: Exposure to absolute maximum rating conditions may affect device reliability.

Recommended Work Condition

Symbol	Parameter	Value	Unit
V_{IN}	Max Input Voltage	24	V

Ordering information

ACE51461U XX XX + H



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 sued 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 shoes 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.