ACE301

High-precision Low Voltage Detector

Description

ACE301 is a series of high precision voltage detector with ultra-low current consumption (500nA typ. at Vdd=3.0V). It can work at very low voltage, which makes it perfect for system reset.

ACE301 is composed of high precision voltage reference, comparator, output driver and resistor array. Internally preset detect voltage has a low temperature drift and requires no external trimming.

Two forms of output, CMOS and N-channel open-drain are available.

Features

- High-precision detection Voltage：±2%
- Detection Voltage：0.9V~6.0V (in 0.1V steps)
- Precise hysteresis：4% typ.
- Operating Voltage range：0.7V~10V
- Ultra-low current consumption：500nA typ. (at VDD＝3.0V)
- Two Output forms: CMOS and N-channel open-drain

Application

- Power monitor for portable equipment such as PDA, DSC, Mobile phone, Notebook, MP3
- CPU and Logic Circuit Reset
- Battery Checker
- Battery Back-up Circuit
- Power Failure Detector

Absolute Maximum Ratings

Parameter		Max	Unit
Input Voltage		-0.3~10	V
Output Voltage		-0.3~12	V
Maximum Output current		70	mA
Maximum power dissipation	SOT-23-3 /TSOT-23-3	250	mW
	SOT-23-5	250	
	SOT-343	200	
	SOT-89-3	500	
	TO-92	600	
Ambient temperature (T_A)		-40~85	℃
Storage temperature (T_S)		-40~150	℃
Lead temperature & time		260℃,10S	

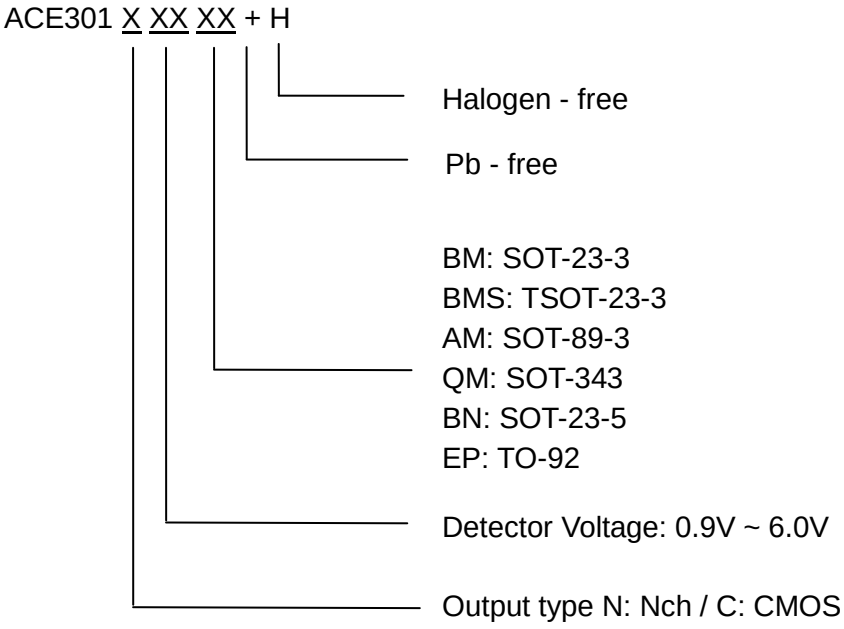
Note: Exceed these limits to damage to the device.

Exposure to absolute maximum rating conditions may affect device reliability.

Recommended Work Conditions

Item	Min	Recommended	Max	Unit
Input Voltage	0.7		10	V
Ambient temperature	-40	25	85	℃

Ordering information



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.