ACE3011P

Low Power Voltage Detector

Description

The ACE3011P series devices are a set of three terminal low power voltage detectors implemented in CMOS technology. Each voltage detector in the series detects a particular fixed voltage ranging from 0.9V to 4.2V for ACE3011P. The voltage detectors consist of a high- precision and low power consumption standard voltage source as well as a comparator, hysteresis circuit, and an output driver (CMOS inverter or NMOS open drain). CMOS technology ensures low power consumption.

Although designed primarily as fixed voltage detectors, these devices can be used with external components to detect user specified threshold voltages.

Features

- High input voltage (up to 8V)
- Low power consumption
- Low temperature coefficient
- Built-in hysteresis characteristic
- Output voltage accuracy: tolerance ±2%
- SOT23-3 package

Application

- Battery checkers
- Level selectors
- Power failure detectors
- Microcomputer reset
- Battery memory backup
- Non-volatile RAM signal storage protectors

Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
Input Voltage	V_{IN}	-0.3 ~10	V
Power dissipation	P_{DMAX}	0.3	W
Thermal Resistance	$R_{\theta JA}$	250	°C/W
Ambient Temperature	T_A	-40~85	°C
Storage temperature	T_{STG}	-50~125	°C

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

Recommended Operating Range

Parameter	Symbol	Ratings	Unit
Supply Voltage	V_{IN}	0.7~8	V
Operating Temperature	T_{OPT}	-40 to 85	°C

Ordering information

ACE3011P X XX XX + H

- Halogen - free
- Pb - free
- BM: SOT-23-3
- Detector Voltage: 0.9V=09 / 1.0V=10/……/ 4.2V=42
- Output type N: Nch / C: CMOS

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 Electronics 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.