



# ACE301A

## Ultra-Small High-Precision Low Voltage Detector

### Description

The ACE301A Series is a series of high-precision low voltage detectors developed using CMOS process. The detection voltage is fixed internally, with an accuracy of 2.0%. Two output forms, NMOS open-drain and CMOS output, are available.

### Features

- Ultra-low current consumption: 0.9 $\mu$ A@3.5V(Typ.)
- High-precision detection voltage:  $\pm$ 2.0%
- Operating voltage range:0.7 V~ 6.0V
- Hysteresis characteristics:  $-V_{DET}\times 5\%$  (Typ.)
- Detection voltage: 0.9V ~ 2.0V(10mV step)
- Output forms:
  - NMOS open-drain output (Active Low)
  - CMOS output (Active Low)

### Application

- Memory battery back-up circuits
- Power-on reset circuits
- Power failure detection
- Power monitor for portable equipment such as notebook computers, digital cameras, PDA, and cellular phones.
- Constant voltage power monitors for cameras, video equipment and communication devices.
- Power monitor for microcomputers and reset for CPUs.



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**Absolute Maximum Ratings** Ta=25°C, unless otherwise specified

Parameter		Symbol	Ratings	Unit
Power supply voltage		$V_{DD}$	$V_{SS}-0.3 \sim V_{SS}+8$	V
Output voltage		$V_{OUT}$	$V_{SS}-0.3 \sim V_{SS}+8$	V
Power dissipation	SOT-23-3	PD	400	mW
	TSOT-23-3		250	
	SOT-23-5		400	
	SOT-89-3		600	
	TO-92		500	
	SOT-343		250	
Operating ambient temperature		$T_{opr}$	-40 ~85	°C
Storage temperature		$T_{stg}$	-40 ~125	°C
Soldering Temperature & Time		$T_{solder}$	260°C, 10s	
ESD rating	Human Body Model-(HBM)		2	KV
	Machine Model-(MM)		200	V

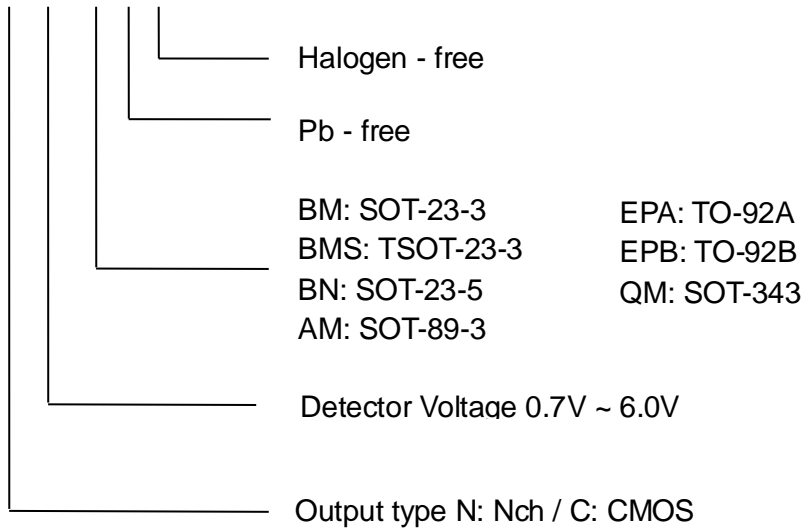


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### Ordering information

ACE301A X XX XX + H





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### 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.

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