



ACE30365F

Low Power Battery Monitor with Hysteresis Control

Description

The ACE30365F is an ultra-low power high accuracy battery monitor with hysteresis control, and is specially designed for monitoring single or multi lithium-ion (Li+) cells, multi-cell alkaline, NiCd, NiMH and multi-cell lead acid batteries.

The ACE30365F allows for wide hysteresis by adjusting the rising and falling threshold independently. The threshold accuracy is $\pm 1\%$.

If the monitored voltage is lower than the falling threshold, LBO pin becomes high and $\overline{\text{LBO}}$ pin becomes low; If the monitored voltage is higher than the rising threshold, LBO pin becomes low and $\overline{\text{LBO}}$ pin becomes high after a delay of tD. The hysteresis eliminates the output chatter sometimes associated with battery voltage monitors, usually due to input voltage noise or battery terminal voltage recovery after load removal.

The device offers both active-low and active-high battery detection outputs.

Features

- Precise Threshold: $\pm 1\%$
- Adjustable Hysteresis to Eliminate the Output Chatter
- Hysteresis is adjusted by the external resistor
- 35ms typical Delay to Filter out the noise
- 35ms typical power-on reset pulse width
- Active-low and Active-high CMOS Outputs
- 2.7 μ A Supply Current @ $V_{CC}=3V$
- Power Supply Transient Immunity
- Operating Temperature Range -40°C to + 85°C
- Available in SOT23-6
- Lead-free, Rohs-compliant, and Halogen-free

Application

- Battery-powered Systems
- Multi-cell Li+ Batteries Monitoring
- Multi-cell Alkaline, NiCd or NiMH Batteries Monitoring
- Multi-cell Lead Acid Batteries Monitoring



ACE30365F

Low Power Battery Monitor with Hysteresis Control

Absolute Maximum Ratings

Parameter		Value
Terminal Voltage (With respect to GND)	V _{CC}	V to +6.5V
	The other Pin	0.3V to V _{CC}
Input/Output Current All Pins		20mA
Thermal Resistance		300°C /W
Storage Temperature		-65°C to 150°C
Operating Ambient Temperature		-40°C to 85°C
Lead Temperature (Soldering, 10 seconds)		260°C

Stresses beyond those listed under “Absolute Maximum Ratings” may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

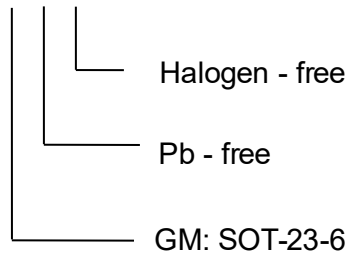


ACE30365F

Low Power Battery Monitor with Hysteresis Control

Ordering information

ACE30365F XX + H





ACE30365F

Low Power Battery Monitor with Hysteresis Control

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.

ACE Technology Co., LTD.
<http://www.ace-ele.com/>