



ACE32606RT

Programmable Overvoltage Protection Switch with Maximum 2A Current

Description

The ACE32606RT is a front-end over voltage and over current protection device. It achieves wide input voltage range from 2.8VDC to 32VDC. The over voltage threshold can be programmed externally or set to internal default setting. The ultra-low resistance of integrated power path nFET switch ensures better performance for battery charging system applications. It can deliver up to 2A current to satisfy the battery supply system. It integrates the over-temperature protection shutdown and auto-recovery circuit with hysteresis to protect against over current events. This device is available in ultra-small CSP-6 footprint, DFN2x2-8 and SOT23-6 package, ideally for small PCB area application.

Features

- Absolute maximum input voltage: 32V
- Maximum load current: 2A
- Extremely low power path resistance:
 - CSP-6: 80mΩ (typ.)
 - DFN2x2-8: 90mΩ (typ.)
 - SOT23-6: 120mΩ (typ.)
- Fixed Internal OVP threshold (SOT23-6) 5.8V/6.1V (Typ.) or customization
- OVP response time: 50ns
- Internal 15ms Start-Up or OVP Recovery Delay
- Internal over current limit protection : 3A
- Programmable over voltage threshold: 4V to 11V
- Internal soft start to prevent In-rush current
- Thermal shutdown protection & Auto recovery
- Output short-circuit protection
- RoHS compliant and Halogen free
- Compact package: CSP-6, DFN2x2-8, SOT23-6

Application

- Wearable Device
- Mobile device
- In-Car device



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Absolute Maximum Ratings ^(Note)

Item	Symbol	Value	Unit
Input Voltage	V_{IN}	-0.3-32	V
Output Voltage	V_{OUT}	-0.3~11	V
OVLO Voltage	V_{OVLO}	-0.3~20	V
Maximum Output Continues Load Current	I_{OMAX}	2	A
Power Dissipation	CSP-6	1.1	W
	DFN2*2-8	1	W
	SOT-23-6	0.5	W
Thermal Resistance	CSP-6	110	°C/W
	DFN2*2-8	118	°C/W
	SOT-23-6	220	°C/W
Junction Temperature	T_J	-40~150	°C
Storage Temperature	T_{stg}	-55~150	°C
Package Lead Soldering Temperature (10s)	T_{solder}	260	°C
ESD Susceptibility, Human Body Model	HBM	8	KV

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

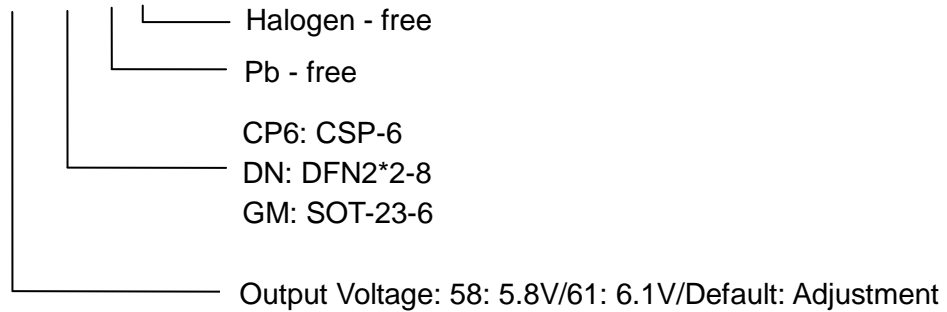


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Ordering Information

ACE32606RT XX XXX + 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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