



# ACE7212Z

## 18V, 2A, High Efficiency Synchronous Step-Down Converter

### Description

ACE7212Z is a wide input range, high-efficiency and high frequency DC-to-DC step-down switching regulator, capable of delivering up to 2A of output current. It adopts an Adaptive COT control scheme that enables very fast transient response and provides a very smooth transition when the output varies from light load to heavy load. During light load, ACE7212Z goes into a PFM mode that saves switching loss achieving high efficiency. The adaptive COT control also maintains a constant switching frequency across line and load. An OVP function protects the IC itself and its downstream system against input voltage surges. With this OVP function, the IC can stand off input voltage as high as 18V, making it an ideal solution for industrial applications such as LCD TV, Set Top Box, Portable TV, etc.

### Features

- Wide Input Range: 4.5V~18V
- Adaptive COT Control
- Ultra-fast load transient response
- High Efficiency PFM mode at light load
- High Efficiency Synchronous operation
- No load IQ 178uA
- Low Rdson Internal power FETs
- Capable of Delivering 2A
- No External Compensation Needed
- Thermal Shutdown and UVLO
- Available in SOT-563 Package

### Application

- LCD TV
- Set Top Box
- xDSL Modem

### Absolute Maximum Ratings

Parameter		Value
IN, SW, EN Voltage		−0.3V to 19V
BST Voltage		−0.3V to SW+6V
FB Voltage		−0.3V to 6V
Operating Temperature Range		−40°C to 85°C
Storage Temperature Range		−55°C to 150°C
Thermal Resistance	$\theta_{JA}$	110°C /W
	$\theta_{JC}$	50°C /W
Lead Temperature (Soldering 10sec)		260°C

Note: Exceeding these limits may damage the device. Exposure to absolute maximum rating conditions for long periods may affect device reliability.

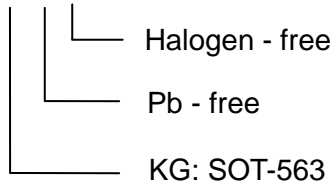


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## Ordering Information

ACE7212Z 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 stated 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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