ACE7322Z

5.5V/2A, Step-Down Converter

Description

ACE7322Z belongs to a new breed of high frequency synchronous Step-Down converter that combines the advantages of voltage mode control and Constant-On-Time control. Its adaptive Constant-On-Time control dynamically changes switch on time to achieve a constant switching frequency. It does not have the minimum on-time constrain normally a fixed-frequency current mode Step-down requires, allowing it to go down to very low duty ratio without affecting loop stability. The voltage mode nature of ACE7322Z also provides a more superior load transient response and a seamless transition from PFM to PWM modes. ACE7322Z is capable of supplying output with current up to 2A at 1.2V output. All these features make ACE7322Z an excellent choice for ARM based CPU power supply.

Features

- Adaptive COT control
- Up to 95% Efficiency
- Up to 91% Efficiency for low output voltage
- Up to 2A Max Output current
- Feedback voltage 0.45V
- Excellent load transient response
- DFN2*2-8 Package

Application

- ARM based CPUs
- Tablet, MID
- Smart Phone
- Smart Set-Top Box, OTT

Absolute Maximum Rating

Parameter		Value
VIN Voltage		-0.3V~6V
All Other Pin Voltage		V_{IN}-0.3V to V_{IN}+0.3V
SW to ground current		Internally limited
Operating Temperature Range		-40°C to 85°C
Storage Temperature Range		-55°C to 150°C
Thermal Resistance	θ_{JA}	75°C/W

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

Ordering Information

ACE7322Z XX + H

- Halogen - free
- Pb - free
- DN: DFN2*2-8

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 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.