



# ACE716E

## 38V Boost Converter for LED Driver / TFT Bias / USB Power

### Description

The ACE716E is a high efficiency step-up converter with an integrated 38V power MOSEFT. It runs with an optimal 0.8MHz frequency that enables use of small external components while still providing best efficiencies. It has an internal current limit as high as 1A, and it can drive up to 8 LEDs at 50mA output current. The incorporated 20-100KHz true PWM-Dimming feature by EN pin can be used to digitally program the LED current. For maximum protection, the ACE716E has an internal OVP protection at 33V to prevent the chip from damages when the LED string is not connected to the output.

ACE716E is available in a space-saving SOT23-6 package.

### Features

- Up to 89% Efficiency (6 LEDs)
- Drive up to 8 LEDs with 50mA
- Drive up to 40 LEDs in total
- 33V OVP Protection
- True PWM Brightness Control
- 200mV Feedback Voltage
- 1A Current Limit
- SOT23-6 Package

### Application

- Cellphone and Smartphone
- MID or Tablet PC
- TFT-bias for LCD screen
- Power for OLED
- LED torch
- Satellite Set Top Box

### Absolute Maximum Rating

Parameter		Value
SW Voltage		-0.3V to 38V
All Other PIN Voltages		-0.3V to 6.5V
SW to ground current		Internally limited
Operating Temperature Range		-40°C to 85°C
Storage Temperature Range		-55°C to 150°C
Thermal Resistance	$\theta_{JA}$	100°C /W
	$\theta_{JC}$	50 °C /W

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

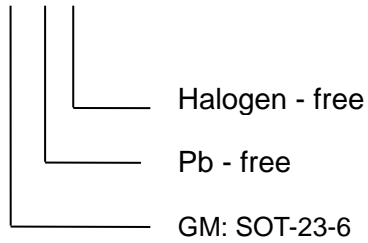


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## Ordering information

ACE716E 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.