ACE702771LA

70V Synchronous Constant Current LED Driver

Description

ACE702771LA is a 70V synchronous constant current buck LED driver, with 55mΩ High-Side and 55mΩ Low-Side MOSFETs integrated, minimal external component requirement and high efficiency, ideal for car lamp applications.

Adjustable Output Current up to 4A with ±3% accuracy. RCS resistor is used to set the output current. No external compensation component needed. 150kHz switching frequency with jitter function improves EMI performance.

Internal thermal regulation prevents the chip from overheating without shutting down the output.

Input under voltage lock-out protection disable the chip when input voltage lower than 7V.

Features

- Build in power MOSFETs
- Adjustable output current, IFB=150mV
- Constant current accuracy: ±3%
- No external compensation needed
- Internal thermal regulation
- Under voltage lock-out
- Minimum external components
- Available in QFN5x5-14 package

Application

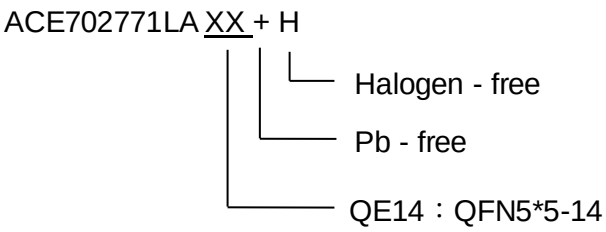
- LED lamp for cars

Absolute Maximum Ratings

Parameter	Value
V_{IN} to GND	-0.3 to 75 V
SW to GND	-0.3 to V_{IN}
BS to GND	VSW-0.3 to V_{SW}+6 V
IFB, DIM to GND	-0.3 to 6 V
Max operating junction temperature (T_J)	150°C
Ambient temperature (T_A)	-40°C – 85°C
Package thermal resistance (θ_{JC})	15°C / W
Storage temperature (TS)	-40°C – 150°C
Lead temperature & time	260°C, 10S
ESD (HBM)	>2000V

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

Ordering Information



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.