The AL1673 is a high-performance single stage LED Driver-converter operating in Flyback and Buck-Boost topologies, targeting dimmable LED lighting applications. It operates in BCM mode which results in good EMI and efficiency.

The AL1673 supports multiple dimming modes. When a 0.3~2.4V DC signal is applied on APWM pin, the device will operate in analog dimming mode. When a digital signal is applied on APWM pin, the device works at PWM dimming mode.

The AL1673 features low start-up current and low operating current. It integrates multiple protection functions including overvoltage, short-circuit, overcurrent and over-temperature protection.

The AL1673 has a built-in 600V/2A high-voltage MOSFET and is available in SO-8EP package.

The Diodes Advantage

The AL1673 is a high-performance single stage converter with built-in MOSFET for PWM/Analog dimming applications.

- **Highly-integrated converter in SO-8EP package**
  - Low BOM cost solution

- **Built-in 2A/600V MOSFET**
  - Small size and simple circuit design

- **Supports both PWM and Analog dimming**
  - Can be dimmed by a PWM signal or a DC voltage

- **SO-8EP Package**
  - Better thermal performance

- **High PF and low THD**
  - PF > 0.9, THD < 20%

- **Built-in Undervoltage Lock-out, Output Open-Circuit Protection, Output Over-voltage Protection, Output Short-Circuit Protection, Thermal Foldback Protection and Over-Temperature Shutdown**
  - Provides a complete protection function

Applications

- General LED Lighting Driver with Dimming Function
- General Purpose Constant Current Source
- Smart LED Lighting
Typical Application Circuits

AL1673 Buck-Boost Application Circuit

AL1673 Flyback Application Circuit

Product Portfolio

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Topology</th>
<th>Min Input Voltage</th>
<th>Max Input Voltage</th>
<th>Max. Output Voltage</th>
<th>Max. Output Current</th>
<th>LED Current Accuracy</th>
<th>Switching Frequency</th>
<th>Dimming Method</th>
<th>Efficiency</th>
<th>Sense Voltage</th>
<th>Power Factor</th>
<th>Package Outline</th>
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<td>Y</td>
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Ordering Information

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<td>SO-8EP</td>
<td>1673-20C</td>
<td>2500</td>
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