New Product Announcement

AL5822

Ripple-Current Suppressor Minimizes LED Light Flicker

The AL5822 is an adaptive linear-current controller targeted to suppress low-frequency LED current ripple. When combined with single-stage constant-current high power factor LED drivers (AL1665), the device can provide a high power factor and low-ripple solution that meets commercial lighting’s high performance requirements.

The AL5822 has a high efficiency driving mechanism that suppresses the LED current ripple without any sign of flickering and strobing.

The AL5822 has many built-in protection features, such as overtemperature protection (OTP), overcurrent protection (OCP), and LED short-circuit protection (SCP).

The AL5822 is available in the SOT26 package.

The Diodes Advantage

The AL5822 provides a simple, cost-effective controller solution for suppressing low-frequency LED current ripple (e.g. 100/120Hz) without using any magnetic inductive components.

- **Eliminates Low-Frequency Flickering and Maintains High PF**
  Adjust the LED chain cathode voltage for voltage variation and maintain system power factor from pre-stage

- **Adopts Different LED String Voltage and Current**
  Tunable LED current ripple ratio can be adjusted by external resistors, compensation capacitors, and external MOSFETs

- **Ripple Suppression for Whole Triac and PWM Dimming Range**
  Closed-loop current ripple cancellation control technology can cover a full dimming range

- **Built-In Full-Protection Functions**
  OTP/OCP/SCP makes commercial lighting solutions more reliable and robust

Applications

- Commercial LED Lighting
- Industrial LED Lighting
New Product Announcement

AL5822

Typical Application

High-Performance Solution For Commercial/Industrial Lighting

Diodes Off-Line LED Drivers

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Min. Input Voltage</th>
<th>Max. Input Voltage</th>
<th>Input Voltage Accuracy</th>
<th>Efficiency</th>
<th>Operating Temperature Range °C</th>
<th>High Power Factor</th>
<th>Analog Dimming</th>
<th>PWM Dimmable</th>
<th>Topology</th>
<th>Package Outline</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>AL5822W6-7</td>
<td>24 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>305 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>5%</td>
<td>NA</td>
<td>-40 ~ +105</td>
<td>&gt;0.9</td>
<td>NA</td>
<td>Y</td>
<td>Adaptive Linear</td>
<td>SOT26</td>
<td>Controller</td>
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<tr>
<td>AL1665S-13</td>
<td>85 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>305 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>1.5%</td>
<td>&gt;85</td>
<td>-40 ~ +105</td>
<td>&gt;0.9</td>
<td>0.05-2.5V</td>
<td>Y</td>
<td>Fly-Back/Buck-Boost</td>
<td>SO-8</td>
<td>Controller</td>
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Ordering Information

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<thead>
<tr>
<th>Part Number</th>
<th>Package Code</th>
<th>Package</th>
<th>Tape and Reel</th>
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<tbody>
<tr>
<td>AL5822W6-7</td>
<td>W6</td>
<td>SOT26</td>
<td>3,000/Tape &amp; Reel</td>
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<tr>
<td>AL1665S-13</td>
<td>S</td>
<td>SO8</td>
<td>4,000/Tape &amp; Reel</td>
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</tbody>
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For more information: [https://www.diodes.com/part/AL5822](https://www.diodes.com/part/AL5822)