The AL8811 is Diodes’ latest Boost/Buck/Inverting DC-DC converter developed to meet the demands of latest low voltage LED lamps.

Its constant on-time enables it to provide power factor improvements in low-voltage AC-DC LED lamp applications.

The AL8811 provides a simple protection against a number of potential faults within a lamp:
1. Current limiting
2. Output switch current up to 1.6A
3. Controlled duty cycle oscillator

The accuracy, temperature range and cost make it ideally suited to LED lighting applications.

Applications:
- General illumination
- Driving of parallel LED chains
- MR16 lighting
- 12V<sub>AC/DC</sub> lighting

The Diodes Advantage:

- Minimum number of external components
- Active current limiter

**Simple protection**
- Current limiting
- Controlled duty cycle oscillator

**Small footprint package – MSOP-8**
- High power density small PCB footprint solution

**2% initial average LED current accuracy**
- Meets accuracy requirements of most lighting apps at cost effective price and improves inter-channel matching.

**Simple Constant On-time Boost Converter**
- Constant On-time allows the input current’s magnitude to be in phase with the input voltage → Improving the power factor and reduces input filter capacitor.
New Product Announcement

AL8811

Typical Application:
Dimmable MR16 LED lamp

Diodes Medium Voltage High brightness LED Drivers

<table>
<thead>
<tr>
<th>Part number</th>
<th>Comment</th>
<th>V&lt;sub&gt;IN&lt;/sub&gt;</th>
<th>LED Current</th>
<th>Accuracy</th>
<th>Frequency Switching</th>
<th>Efficiency</th>
<th>Dimming</th>
<th>Temp range</th>
<th>Protection</th>
<th>Soft-start</th>
<th>Package</th>
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<tbody>
<tr>
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<td>AEC-Q100 1W Dr</td>
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</table>

OTP: Over-Temperature Protection  OC: Open-Circuit  SC: Short-Circuit

To find out more information:

Ordering information

<table>
<thead>
<tr>
<th>Device</th>
<th>Packaging</th>
<th>Part mark</th>
<th>Reel size</th>
<th>Tape width</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>AL8811M8-13</td>
<td>MSOP-8</td>
<td>Y W X AL8811</td>
<td>13”</td>
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</table>

All variants are in packages that are "Green" Molding Compound (No Br, Sb) with Lead Free Finish/RoHS Compliant (Note 1)
Notes:1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Codes for date coding on part marks
Y Year 0~9     W A~Z week 1~26  a~z week 27~53  X: A~Z: Internal code