AlphaZBL™ AC-DC Active Bridge Rectifier

- Complete AC-DC power supplies for high efficiency requirements: adaptors, PC, AIO, servers, telecom
- Replaces traditional bridge rectifiers to enhance efficiency and reduce power consumption
- Self-powered $V_{CC}$ in AC system with ultra-low quiescent current
- Integrated 190mΩ, 600V N-channel MOSFET (AOZ7270DI)
- A low reverse threshold of 1mV for improved efficiency
- Low quiescent current 5µA
## APPLICATIONS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
<th>MOSFET BVDss (V)</th>
<th>$R_{DS(ON)}$ (mΩ)</th>
<th>$V_{CC}$ (V)</th>
<th>ESD Rating (kV)</th>
<th>Operating Temp. (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOZ7200CI</td>
<td>SOT23-5</td>
<td>N/A</td>
<td>N/A</td>
<td>12.9 - 15.2</td>
<td>2</td>
<td>-40 to 125</td>
</tr>
<tr>
<td>AOZ7270DI</td>
<td>DFN5x7</td>
<td>600</td>
<td>190</td>
<td>12.9 - 15.2</td>
<td>2</td>
<td>-40 to 125</td>
</tr>
</tbody>
</table>
FEATURES AND ADVANTAGES
AOS Active Bridge Rectifier AlphaZBL™

Standalone Driver

> AOZ7200CI
- Drives all external N-MOSFETs directly
- Replaces a power diode in HV bridge rectifier
- Self-powered in AC system
- Low reverse threshold 1mV
- Low quiescent current 5µA
- Very low external part count
- Avoid Hi/Low side MOSFET short-through prevention
- V<sub>CC</sub> UVLO for High/Low-side controllers
- SOT23 package

Integrated Solution

> AOZ7270DI
- Replaces a power diode in HV bridge rectifier
- Self-powered in AC system
- Internal 0.19Ω 600V N-channel MOSFET
- Low reverse threshold 1mV
- Low quiescent current 5µA
- Thermally enhanced
- Very low external part count
- Avoid Hi/Low side MOSFET short-through prevention
- V<sub>CC</sub> UVLO for High/Low-side converters
- DFN5x7 package