3.2W Mono Class-D Audio Amplifier

The PAM8014 is a 3.2W mono filterless class-D amplifier with high PSRR and differential input that eliminates noise and RF reflections.

Features such as: greater than 90% efficiency and small PCB area, make the PAM8014 Class-D amplifier ideal for portable applications. The output uses filterless architecture, minimizing the number of external components and PCB area while providing a high performance, simple and lower cost system.

The PAM8014 features short circuit protection and thermal shutdown.

The PAM8014 is available in the U-WLB1313-9 package.

The Diodes Advantage

- **The PAM8014 small and highly integrated solution provides an audio output of 3.2 watts**
  - High efficiency of up to 93%
    - Maximizes battery life
  - 3.2W output with 5V supply and 4Ω loading
    - One of the highest power to size ratio Class D amplifiers in the market
  - Tiny 1.3mm x 1.3mm WLCSP package
    - Saves PCB area and provides high reliability
  - 18dB fixed gain
    - No external input resistor needed to minimize external component
  - Chip and System Protection
    - Full short-circuit protection with auto recovery, UVLO and overtemperature protection

Applications

- Smartphones
- VOIP
- Electronic dictionary
- MP4/MP3
- Digital photo frame
- Portable game machines
New Product Announcement

PAM8014

Typical Application:

Diodes Portable Power Class-D Audio Amplifier

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>VIN (V)</th>
<th>IQ (mA)</th>
<th>η</th>
<th>GAIN (dB)</th>
<th>SNR (dB)</th>
<th>PSRR (dB)</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAM8012</td>
<td>1 x 3W with PL &amp; Anti-saturation</td>
<td>2.8-5.5</td>
<td>10</td>
<td>89%</td>
<td>18</td>
<td>90</td>
<td>70</td>
<td>U-WLB1313-9</td>
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<tr>
<td>PAM8014</td>
<td>1 x 3.2W Class D Audio Amplifier</td>
<td>2.5-5.5</td>
<td>4</td>
<td>93%</td>
<td>18</td>
<td>90</td>
<td>75</td>
<td>U-WLB1313-9</td>
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<tr>
<td>PAM8905</td>
<td>1.9W Class-D Audio Amplifier with Integrated Boost Converter and Battery Tracking AGC</td>
<td>2.8-5.2</td>
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<td>85%</td>
<td>20</td>
<td>95</td>
<td>70</td>
<td>WCSP15x20</td>
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<td>PAM8945</td>
<td>4.0W Class-D Audio Amplifier with Integrated Boost Converter and Battery Tracking AGC</td>
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<td>4</td>
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<td>20</td>
<td>95</td>
<td>70</td>
<td>TQFN2030</td>
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Ordering Information

<table>
<thead>
<tr>
<th>Device</th>
<th>Package</th>
<th>Part Mark</th>
<th>Reel Size</th>
<th>Tape Width</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>PAM8014AZR</td>
<td>U-WLB1313-9</td>
<td>BJ</td>
<td>7”</td>
<td>8mm</td>
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