Motor bridge driver for automotive applications

Features
- Operating supply voltage 6V to 28V
- Central 2 stage charge pump
- 100% duty cycle
- Full R_{DS(on)} down to 6V (normal level MOSFET’s)
- Control of reverse battery protection MOSFET
- Charge pump current limited
- PWM operation up to 30 kHz
- SPI interface
- Current sense amplifier / free configurable
- Zero adjust for end of line trimming
- Power management: programmable free wheeling
- Sensing circuitry of external MOSFET’s with embedded thermal sensors

Application
- Wiper
- Power door
- Seat belt tensioner
- Seat positioning
- Valve tronic
- Park break
- 2H motors

Description
The L99H01 is designed to control 4 external N-channel MOS transistors in bridge configuration for DC-motor driving in automotive applications. A freely configurable current sense amplifier is integrated. The integrated standard Serial Peripheral Interface (SPI) controls all outputs and provides diagnostic information. An interface pin for the thermal sensors of the external MOSFET’s is implemented.

Table 1. Device summary

<table>
<thead>
<tr>
<th>Package</th>
<th>Order codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PowerSSO-36</td>
<td>L99H01XP</td>
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<tr>
<td>LQFP32</td>
<td>-</td>
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1 Revision history

Table 2. Document revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Description of changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-Mar-2009</td>
<td>1</td>
<td>Initial release.</td>
</tr>
<tr>
<td>22-Sep-2013</td>
<td>2</td>
<td>Updated Disclaimer.</td>
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