The BTS723GW is a two channel high-side power switch (two times 100mΩ) in PG-DSO-14 power package providing embedded protection functions. The device is monolithically integrated in Smart SIPMOS technology. The power transistor is built by N-Channel-planar power MOSFET with a charge pump which boosts the battery voltage. The inputs are ground referenced CMOS compatible.

**Applications**
- Resistive loads such as heating systems
- Inductive loads such as valves, relays on
  - Heavy duty trucks
  - Construction vehicles
  - Agricultural tractors
- Replaces electromechanical relays, fuses and discrete circuits

**Diagnostic Functions**
- Diagnostic feedback with open drain output
- Open load detection in OFF state
- Feedback with thermal shutdown in ON state

**Basic Functions**
- CMOS compatible
- Improved electromagnetic compatibility (EMC)
- Fast demagnetization of inductive loads
- Stable behaviour at undervoltage
- Logic ground independent from load ground
- Wide operating voltage range
- Optimized inverse current capability

**Protection Functions**
- Short circuit protection
- Overload protection
- Current limitation
- Thermal shutdown
- Overvoltage protection
- Loss of ground and loss of V_{bb} protection
- Reverse battery protection with external resistor
- Electrostatic discharge protection (ESD)

[www.infineon.com](http://www.infineon.com)
BTS723GW
Smart High-Side Power Switch for 24V Applications, Two Channels 100mΩ

Product Summary

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTS723GW</td>
<td>2x 100mΩ</td>
<td>PG-DSO-14</td>
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<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>Operating voltage VBAT(ON)</td>
<td>7.0V ... 58.0V</td>
<td></td>
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<tr>
<td>Operating current (all channels active) IGND</td>
<td>3.0mA</td>
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<tr>
<td>Over voltage protection VBB(AZ)</td>
<td>69.0V</td>
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<tr>
<td>ON-state resistance RDS(ON)</td>
<td>100mΩ</td>
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<tr>
<td>Nominal load current IL(NOM)</td>
<td>4.2A</td>
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<tr>
<td>Current limitation IL(SCr)</td>
<td>8.0A</td>
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<tr>
<td>Slew rate (on/off) dV/dt</td>
<td>5V/µs</td>
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<tr>
<td>Output clamp (inductive load switch off) VON(CL)</td>
<td>70.0V</td>
<td></td>
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