VIPower™ Zero series
Innovative smart power switches for high-current applications

Low-ohmic high-side drivers for Automotive high-power loads

ST’s VIPower™ Zero series offers innovative and high-performance protected switches for driving high-power applications.

This series covers today’s growing demand for intelligent power devices able to drive and protect high-power loads such as those used in high-current fan motors, heaters and protected battery lines in electrical power distribution systems.

VIPower™ Zero series complements the granular M0-7 portfolio extending its automotive DNA to a wider range of applications, including those requiring the lowest on-state resistance.

**KEY FEATURES**
- Complete family of low on-resistance protected solutions
- Output re-activation during reverse polarity
- State-of-the-art and adaptable protection strategy
- Sophisticated diagnostics
- Cold-cranking capability (device option)

**KEY BENEFITS**
- Granular portfolio covering wide range of high-power applications
- Industry’s lowest $R_{D(on)}$ in the smallest footprint
- Device option with extended diagnostics capability cover a wide range of load currents
- Suitable for Start&Stop systems and applications required to work at very low battery voltage (device option)

**KEY APPLICATIONS**
- Power distribution (smart fuse boxes)
- Glow plugs
- High-power heaters
- Starter relays
- High-current DC motors
- Any high-power application

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ENABLING THE SMART DRIVING OF HIGH-POWER APPLICATION

ViPower™ Zero series features very high current capability and outstanding thermal performances in tiny and eco-friendly packages. Covering different market segments and application domains, the portfolio is complemented with device options equipped for specific functions tailored for new and emerging system requirements. ViPower™ Zero represents an outstanding single-package smart solution for supplying a protected 12 V battery to every high-power system.

PRODUCT TABLE

<table>
<thead>
<tr>
<th>Commercial Product</th>
<th>Channel</th>
<th>Package</th>
<th>Supply voltage (Vcc)</th>
<th>Minimum Cranking Supply Voltage</th>
<th>On-state resistance R_{DS(on)}</th>
<th>Diagnostic feedback</th>
<th>Short-circuit protection</th>
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</thead>
<tbody>
<tr>
<td>VN7000AYTR (*)</td>
<td>1</td>
<td>PowerSSO‑36</td>
<td>4 ‑ 28 (V)</td>
<td>3 (V)</td>
<td>1.5 mΩ</td>
<td>Analog Current Sense</td>
<td>Autorestart &amp; Latch-off</td>
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(*) under development