CA BS 200N

LOAD IMPEDANCE FOR BS200NX ELECTRONIC SWITCHES

FOR TESTS ACCORDING TO ...

- ISO 7637-1:1990
- ISO 7637-2:2004
- ISO 7637-2:2011

The switching behaviour of the BS 200N series semiconductor switches shall be verified on 0.6ohm to 50uH load impedance.

The CA BS 200N is directly connected to the output of the BS 200Nx. The switching parameters of the BS 200Nx are measured with the load connected.

Additionally, the CA BS 200N includes a number of shunt resistors Rs such as 10ohm, 20ohm, 40ohm and 120ohm being required as per standards used during the emission measurement of transients as per ISO 7637-2:2011 and the former ISO 7637-2:2004.

HIGHLIGHTS

- Verification load for electronic switch 0.6ohm / 50uH as per ISO 7637-2:2004
- Max. supply voltage 28VDC
- Max. load current 50A
- Additional shunt resistors 10ohm, 20ohm, 40ohm, 120ohm built-in for emission measurement

APPLICATION AREAS

- AUTOMOTIVE

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VERIFICATION SET-UP

VERIFICATION OF THE BS 200N SERIES SWITCHING CHARACTERISTIC

As per standard ISO 7637-2 the electronic switch BS 200Nx is requested to meet a rise/fall time specification of 300ns +/-20% in to a defined load of 0.6ohm in series with 50uH.

The CA BS 200N is set up in direct proximity to the BS 200Nx with short leads to verify the switching time characteristic. An oscilloscope of sufficient bandwidth is required to properly evaluate the rise/fall time parameters.

WIRING SET-UP

SET-UP OF CA BS 200N AND BS 200NX FOR VERIFICATION

In order to properly verify the rise/fall time characteristic of the electronic switch (e.g. BS 200N and BS 200N80) it is important to maintain the connection leads as short as possible. EM TEST recommend a maximum length of the connection leads between the CA BS 200N verification load (unit on the left side in the below picture) and the BS 200Nx electronic switch (right side unit in the below picture) of 0.5m.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max battery supply voltage</td>
<td>28Vdc</td>
</tr>
<tr>
<td>Load current</td>
<td>Max. 50A</td>
</tr>
<tr>
<td>Operating time</td>
<td>13.5V supply approx. 1 hour</td>
</tr>
<tr>
<td></td>
<td>28.0V supply approx. 10 minutes</td>
</tr>
<tr>
<td>Overheat indication</td>
<td>LED</td>
</tr>
<tr>
<td>Protection</td>
<td>Switch Off (overtemperature sensor)</td>
</tr>
<tr>
<td>Cooling</td>
<td>Forced Air</td>
</tr>
</tbody>
</table>

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Load</td>
<td>0.6ohm in series with 50uH</td>
</tr>
<tr>
<td>Parallel load resistor</td>
<td>10, 20, 40 or 120ohm, selectable via short circuit connectors</td>
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</tbody>
</table>

GENERAL DATA

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>19&quot;/3HU, 133mm x 500mm x 500mm</td>
</tr>
<tr>
<td>Weight</td>
<td>19.1kg</td>
</tr>
<tr>
<td>Mains supply</td>
<td>80V to 240Vac</td>
</tr>
<tr>
<td>Fuse</td>
<td>1A slow blow</td>
</tr>
</tbody>
</table>
COMPETENCE WHEREVER YOU ARE

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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.