FUNCTIONAL DESCRIPTION

1200V / 25A
Robustified technologies for extended lifetime systems

Thales Microelectronics

>200°C phase-leg with integrated SOI driver
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1200V / 25A

APPLICATIONS

- High temperature motor-driving
- Harsh environment electrical actuators

FEATURES

- Normally-on SiC JFet
- HT° SOI driver with innovative spring contacts
- Fast switching, low loss
- Weight < 250g
- Integrated temperature and current sensors
- Integrated DC snubber capacitor

MAIN PERFORMANCES (Tj=25°C unless otherwise specified)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Parameter</th>
<th>Conditions</th>
<th>Value</th>
<th>Units</th>
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</thead>
</table>
| V_DSS  | Maximum Drain-source voltage | Tc=100°C  
|        |           | Tc=150°C  
|        |           | Tc=180°C  | 1200  | V     |
| I_D    | Maximum Continuous drain current | Tj=25°C / Vgs=0V  
|        |           | Tj=150°C / Vgs=0V  
|        |           | Tj=250°C / Vgs=0V  | 25    | A     |
| R_DSON | Drain to source typ. On resistance | Tj=25°C / Vgs=0V  
|        |           | Tj=150°C / Vgs=0V  
|        |           | Tj=250°C / Vgs=0V  | 80    | mΩ    |
| T_sw   | Switching time | Per switch  | <50   | ns    |
| R_hj-c | Junction to case thermal resistance | | 0,89  | K/W   |
| Tj_max | Max. Operating junction temperature | | 250   | °C    |
| Tc_max | Max. Operating case temperature | | 200   | °C    |

This module has been developed within the framework of the European collaborative project SiCRATES