New Release

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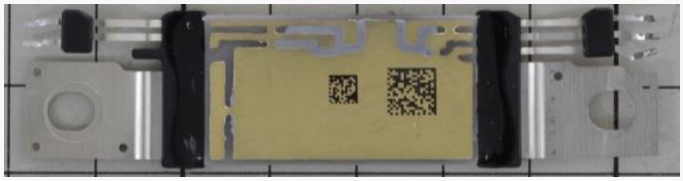
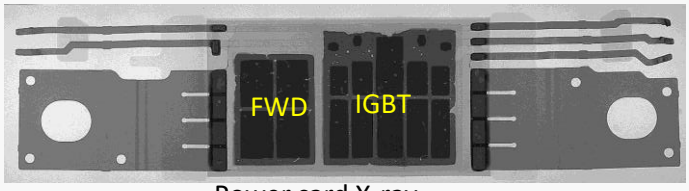
DELPHI'S PHEV INVERTER POWER CARD STRUCTURE ANALYSIS REPORT

February 2020. This IGBT power module is produced by Delphi and it is used in the inverter unit of Geely Automobile's flagship PHEV sedan, model name: Bo Rui. The same module is also found in some Volvo and BMW models.

Bo Rui PHV of Geely Automotive



Power card



Power card X-ray

Product overview

The power semiconductor dies of the power card are sandwiched between Direct Bonded Aluminum (DBA) substrates cooled by double-sided cooling system. The terminals are coated with resin mold. Temperature sensing diode, current sensing element, and the gate protection diode are integrated within the IGBT die.

Report content (87 pages)

Module structure

- The interface between components and DBA, and the DBA structure
- DBA layout based on module plane analysis
- Thermal resistance calculation based on thermal analysis

IGBT structure

- Planar and cross-sectional analysis (transistor area and die edge)
- Planar analysis of the temperature sensing and protection diodes.

Report price: $7,200

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