

Double Side Cooled Module

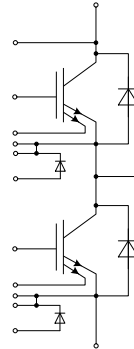
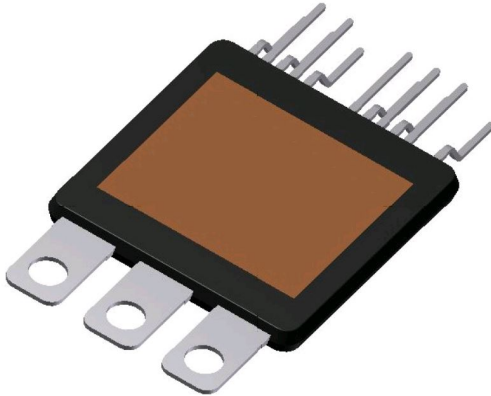
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Final Data Sheet

V3.4, 2020-04-15

Automotive High Power

## 1 Features / Description



$V_{CES} = 700\text{ V}$   
 $I_C = 400\text{ A}$

### Typical Applications

- Automotive Applications
- Hybrid Electrical Vehicles (H)EV

### Electrical Features

- Increased Blocking Voltage Capability to 700V
- Integrated Current Sensor
- Integrated Temperature Sensor
- Low Inductive Design
- Low Switching Losses
- $T_{vj\ op} = 150^\circ\text{C}$
- Short-time extended Operation Temperature  
 $T_{vj\ op} = 175^\circ\text{C}$

### Mechanical Features

- 2.5kV AC 1min Insulation
- Double sided cooling
- Compact design
- RoHS compliant

### Description

The HybridPACK™ DSC S1 is a very compact half-bridge module targeting hybrid and electric vehicles.

The module is based on Infineon's long-term experience developing IGBT power modules and Trench-Field-Stop IGBTs including matching diodes with enhanced softness. Additionally, on-die integrated current sensor and temperature sensor allow precise monitoring of IGBT state. These features enable enhanced protection and intelligent control of the system.

The innovative and small package is designed for Double Sided Cooling (DSC) with superior thermal performance. The low stray inductance and increased blocking voltage support the design of systems with a very high efficiency. Furthermore, new material combinations and assembly technologies enable best thermal and electrical performance at highest reliability and mechanical robustness.

Product Name	Ordering Code
FF400R07A01E3_S6	SP001661226