FS05MR12A6MA1B NEW

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Overview

This HybridPACK™ Drive is a very compact six-pack module (1200V/200A) optimized for hybrid and electric vehicles.

The power module implements the new CoolSiC™ Automotive MOSFET 1200V, optimized for electric drive train applications. The CoolSiC™ MOSFET was optimized for applications with switching frequencies in the range of 10kHz.

Summary of Features

Electrical Features

- New semiconductor material - Silicon Carbide
- Blocking voltage 1200V
- Low RDSon
- Low Switching Losses
- Low Qg and Crss
- T vj op= 150°C

Mechanical Features

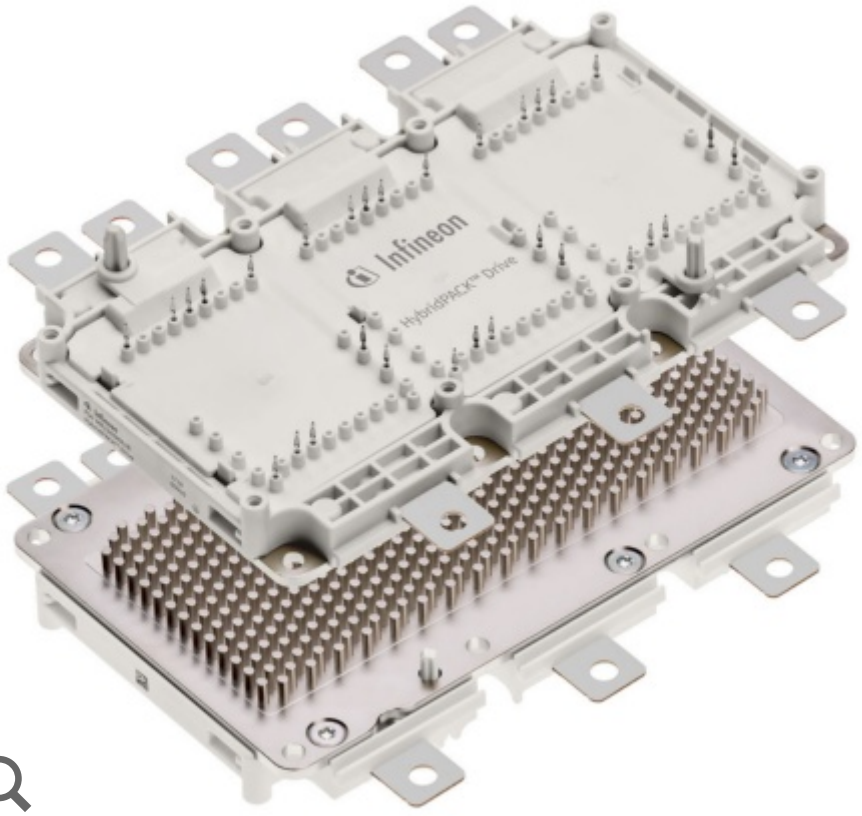
- 4.2kV DC 1sec Insulation
- High Creepage and Clearance Distances
- Compact design
- High Power Density
- Direct Cooled PinFin Base Plate
- High Performance Si3N4 Ceramic
- Guiding elements for PCB and cooler assembly
- Integrated NTC temperature sensor
- PressFIT Contact Technology
- RoHS compliant
- UL 94 V0 module frame

Benefits

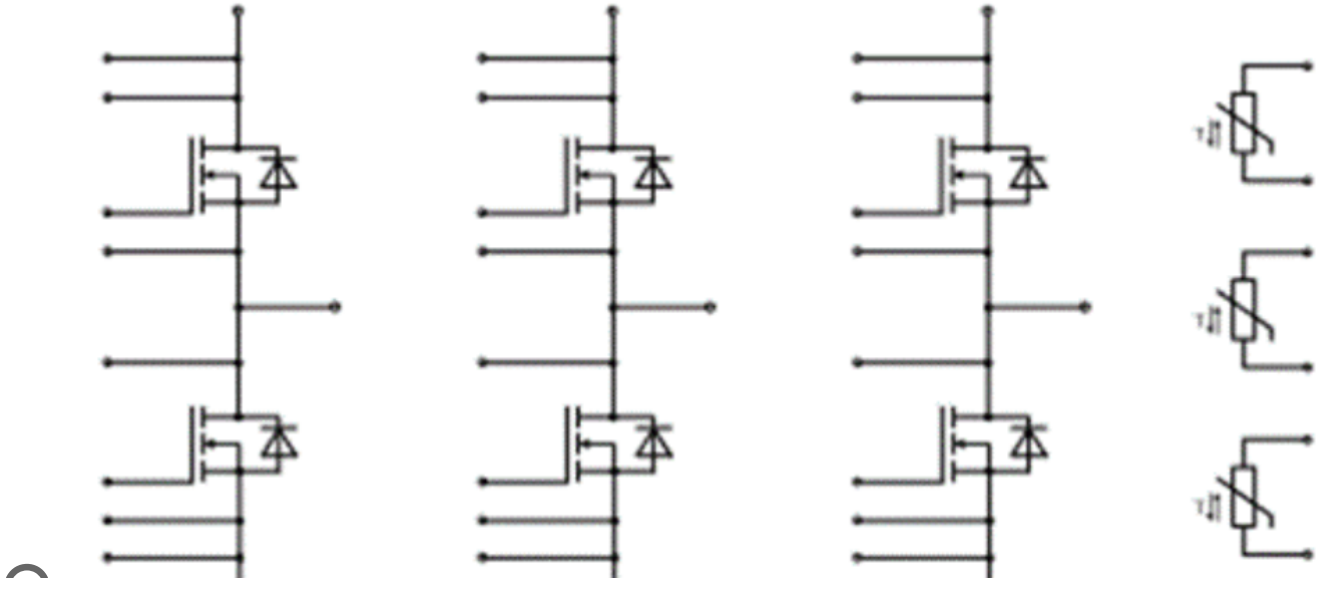
- Compact Design
- Direct Cooled Base Plate
- Guiding elements for PCB and cooler assembly
- Integrated NTC temperature sensor
- PressFIT Contact Technology
- RoHS compliant
- Superior reliability

Potential Applications

- Main inverter
- Automotive Applications
- Hybrid Electrical Vehicles (H)EV
- Motor Drives
- Commercial Agriculture Vehicles



Diagrams



Parametrics

Parametrics	FS05MR12A6MA1B
Configuration	Sixpack
Dimensions (length)	154.5 mm
Dimensions (width)	100.5 mm
Features	PinFin Base Plate
Housing	HybridPACK™ Drive
I_D	200.0 A
$R_{DS\,(on)}$ (@ Tj = 25°C)	5.5 mΩ
V_{DS}	1200.0 V

Documents

+ Editorials

Effects of a SiC TMOSFET tractions inverters on the electric vehicle drivetrain (/dgdl/Infineon-Effects_of_a_SiC_TMOSFET_tractions_inverters_on_the_electric_vehicle_drivetrain-Editorials-v01_00-EN.pdf?fileId=5546d4627600a6bc017601596e5162b8)

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Order

Sales Product Name	FS05MR12A6MA1B

OPN **Sales Product Name**	FS05MR12A6MA1BBPSA1 **FS05MR12A6MA1B**
Product Status	active and preferred
Package name	AG-HYBRIDD-2
Order online	
Completely lead free	no
Halogen free	no
RoHS compliant	yes
Packing Size	6
Packing Type	TRAY
Moisture Level	NA
Moisture Packing	NON DRY

Videos

CoolSiC™ for automotive applications

With an outstanding quality of robust, large and reliable semiconductor portfolio of automotive CoolSiC™ devices, Infineon is paving the way for carbon-efficient e-mobility.

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Package information

The package information is available on our homepage at **https://www.infineon.com/packages (https://www.infineon.com/packages)**. Please note, that they are divided into the subcategories "Leaded and through-hole", "Surface Mounted Devices" and "Special Packages". You will find all relevant package information at the option that applies.

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Notes on processing

Information regarding reflow profile, soldering temperature, soldering profile and further processing notes for most of the discrete products are mentioned in the Application Note.

Please visit **https://www.infineon.com/packages (https://www.infineon.com/packages)** and refer to the document "General Recommendations for Assembly of Infineon Packages" under Downloads.…

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