

## Data Sheet DB01-FF150R17ME3G

### Basic Board for Infineon EconoDUAL Modules FF150R17ME3G

#### Abstract

The DB01-FF150R17ME3G is a basic board to be used with dual-channel driver 2SD316EI-17 for reliable driving and safe operation of Infineon IGBT modules FF150R17ME3G.

The basic board DB01-FF150R17ME3G (with driver 2SD316EI-17) is fully matched to IGBT module FF150R17ME3G. Its plug-and-play capability makes it ready to operate immediately after mounting. The user needs invest no effort in designing or adjusting it to a specific application.

#### Product Highlights

- ✓ Plug-and-play solution
- ✓ Suitable for FF150R17ME3G
- ✓ No electrolytic capacitors
- ✓ Extremely reliable; long service life
- ✓ Shortens application development time

#### Applications

- ✓ Three-phase inverters
- ✓ Motor drives
- ✓ UPS
- ✓ Power-factor correctors
- ✓ Wind-power converters
- ✓ Welding
- ✓ SMPS
- ✓ and many others

## Data Sheet

**Important: Please refer to the relevant manuals!**

This data sheet contains only product-specific data for the basic board. Information specific to the relevant driver can be found in the corresponding data sheet.

A detailed description, must-read application notes and general data applicable to this driver family are found in: "Description and Application Manual, Dual-Channel Driver 2SD316EI for the EconoDUAL Modules".

### Dimensions

Dimensions: 62 x 100 mm.

Height including driver: 21 mm (30 mm with connector X1 and flat cable).

Mounting principle: soldered onto an EconoDUAL IGBT module FF150R17ME3G.

### Absolute Maximum Ratings

| Parameter               | Remarks | Min | Max  | Units |
|-------------------------|---------|-----|------|-------|
| Input power per channel | Note 1  |     | 3    | W     |
| Switching frequency     | Note 2  |     | 57   | kHz   |
| DC link voltage         | Note 3  |     | 1200 | V     |
| Operating temperature   |         | -40 | +85  | °C    |
| Storage temperature     |         | -40 | +90  | °C    |

All data refer to +25°C unless otherwise specified

### Electrical Characteristics

| Short-circuit protection              | Remarks              | Min | Typ. | Max | Units |
|---------------------------------------|----------------------|-----|------|-----|-------|
| V <sub>ce</sub> -monitoring threshold | Betw. aux. terminals |     | 3.65 |     | V     |
| Response time                         | Note 4               |     | 11.3 |     | µs    |

  

| Gate output                                | Remarks | Min | Typ. | Max | Units |
|--|---------|-----|------|-----|-------|
| Turn-on gate resistor R <sub>g(on)</sub>   |         |     | 9.1  |     | Ω     |
| Turn-off gate resistor R <sub>g(off)</sub> |         |     | 10   |     | Ω     |

| Electrical insulation            | Test conditions | Min | Typ. | Max | Units |
|----------------------------------|-----------------|-----|------|-----|-------|
| Creep path between both channels |                 | 10  |      |     | mm    |

All data refer to +25°C unless otherwise specified

### Footnotes to the key data

- 1) The input power is limited by the on-board gate resistors.
- 2) If the specified max. switching frequency is exceeded, the gate resistors may overheat.
- 3) This limit is due to active clamping. Refer to the "Description and Application Manual, Dual-Channel Driver 2SD316EI for the EconoDUAL Modules".
- 4) Pulse width of the direct output of the gate drive unit (excluding the gate-resistor delay).

### Important Notice

The data contained in this product data sheet is intended exclusively for technically trained staff. Handling all high-voltage equipment involves risk to life. Strict compliance with the respective safety regulations is mandatory!

Any handling of electronic devices is subject to the general specifications for protecting electrostatic-sensitive devices according to international standard IEC 747-1, Chapter IX or European standard EN 100015 (i.e. the workplace, tools, etc. must comply with these standards). Otherwise, this product may be damaged.

### Disclaimer

This data sheet specifies devices but cannot promise to deliver any specific characteristics. No warranty or guarantee is given – either expressly or implicitly – regarding delivery, performance or suitability.

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## Data Sheet

### Ordering Information

The general terms and conditions of delivery of CT-Concept Technologie AG apply.

#### Related IGBT

#### CONCEPT Driver Type #

Infineon (eupec) FF150R17ME3G

2SD316EI-17

#### Connection

#### CONCEPT Modular Cable Type #

2SD316EI-17 to DB01-FF150R17ME3G

MIC01A (2 items per driver)

#### Related IGBT

#### CONCEPT Basic Board Type #

Infineon (eupec) FF150R17ME3G

DB01-FF150R17ME3G

### Information about Other Products

#### For drivers adapted to other high-voltage or high-power IGBT modules

Direct link: [www.IGBT-Driver.com/go/plug-and-play](http://www.IGBT-Driver.com/go/plug-and-play)

#### For other drivers and evaluation systems

Please click: [www.IGBT-Driver.com](http://www.IGBT-Driver.com)

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