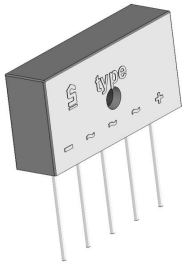
# DBI 25-005 ... DBI 25-16



## Inline bridge

## Three-Phase Si-Bridge Rectifiers

**DBI 25-005 ... DBI 25-16**

**Forward Current: 25 A**

**Reverse Voltage: 50 to 1600 V**

Publish Data

### Features

- Max. solder temperature: 260 °C, max. 5s
- UL recognized, file No. E63532
- $V_{ISO}$ > 2500 V
- In-line isolated metal case with wired connectors
- Blocking voltage to 1600V
- High surge current
- Input rectifier for variable frequency drivers
- Rectifier for DC motor field supplies
- Battery charger
- Recommended snubber network : RC 50Ω, 0.1µF

### Mechanical Data

- Metal case, dimensions: 40 x 20 x 10 mm
- Weight approx. 35
- Terminals: plated terminals solderable per IEC 68-2-20
- Admissible torque for mounting (M 4): 2 (± 10 %) N
- Standard packing : bulk
- Heat sink moutning not on the marking side

| Type | Alternating input voltage $V_{RMS}$ V | Repetetive peak reverse voltage $V_{RRM}$ V |
|---|---|---|
| DBI 25-005 | 35 | 50 |
| DBI 25-01 | 70 | 100 |
| DBI 25-02 | 140 | 200 |
| DBI 25-04 | 280 | 400 |
| DBI 25-06 | 420 | 600 |
| DBI 25-08 | 560 | 800 |
| DBI 25-10 | 700 | 1000 |
| DBI 25-12 | 800 | 1200 |
| DBI 25-14 | 900 | 1400 |
| DBI 25-16 | 1000 | 1600 |

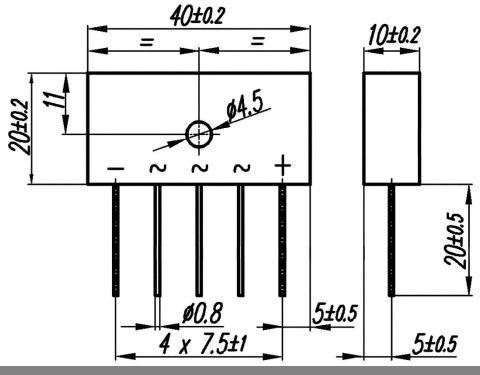
**Absolute Maximum Ratings** $T_c$ = 25 °C unless otherwise specified

| Symbol | Conditions | Values | Units |
|---|---|---|---|
| $I_{FRM}$ | Repetitive peak forward current; f > 15 Hz[1)] | 100 | A |
| $I^2t$ | Rating for fusing, t < 10 ms | 550 | $A^2s$ |
| $I_{FSM}$ | Peak forward surge current, 50 Hz half sine-wave $T_A$ = 25 °C | 350 | A |
| $I_{FAV}$ | Max. averaged fwd. current, R-load, $T_A$ = 50 °C [1)] | 4 | A |
| $I_{FAV}$ | Max. averaged fwd. current, C-load, $T_A$ = 50 °C [1)] | 4 | A |
| $I_{FAV}$ | Max. current with cooling fin, R-load, $T_C$ = 100 °C [2)] | 25 | A |
| $I_{FAV}$ | Max. current with cooling fin, C-load, $T_C$ = 100 °C [2)] | 25 | A |
| $R_{thA}$ | Thermal resistance junction to ambient [1)] | 8 | K/W |
| $R_{thC}$ | Thermal resistance junction to case [1)] | 4,1 | K/W |
| $T_j$ | Operating junction temperature | - 50 ... + 150 °C | °C |
| $T_s$ | Storage temperature | - 50 ... + 150 °C | °C |

**Characteristics** $T_c$ = 25 °C unless otherwise specified

| Symbol | Conditions | Values | Units |
|---|---|---|---|
| $V_F$ | Maximum forward. voltage, $T_j$ = 25 °C; $I_F$ = 12,5 A | 1,05 | V |
| $I_R$ | Maximum Leakage current, $T_j$ = 25 °C; $V_R$ = $V_{RRM}$ | 10 | µA |
| $C_J$ | Typical junction capacitance per leg at V, MHz | | pF |

Dimensions in mm



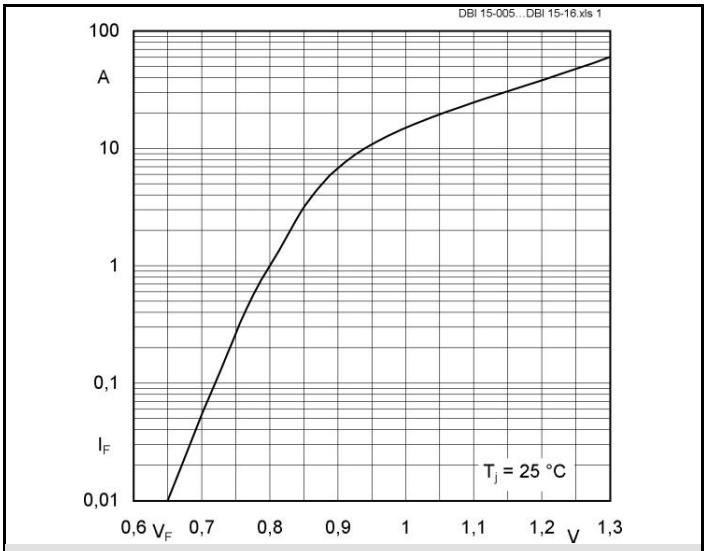



Fig. 1 : Forward characteristic (typical values)

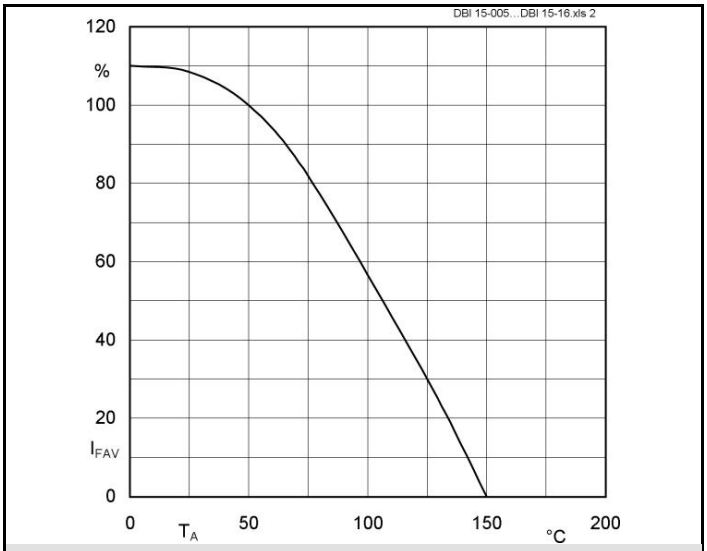



Fig. 2 : Rated forward current vs. ambient temperature