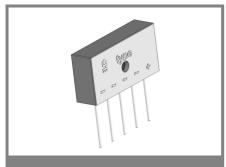
## DBI 15-005 ... DBI 15-16



### Inline bridge

# Three-Phase Si-Bridge Rectifiers

DBI 15-005...DBI 15-16 Forward Current: 15 A

Reverse Voltage: 50 to 1600 V

**Publish Data** 

#### **Features**

- Max. solder temperature: 260 °C, max. 5s
- UL recognized, file No. E63532
- V<sub>ISO</sub> > 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  $50\Omega$ ,  $0.1\mu F$

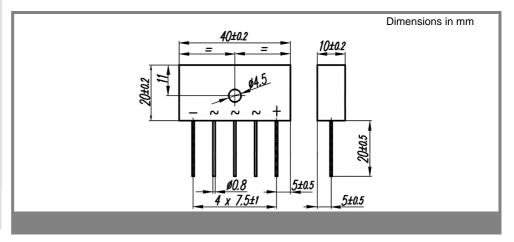
#### **Mechanical Data**

- 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

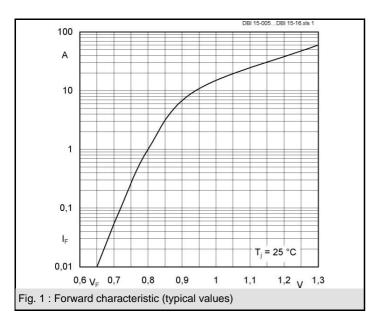
Туре	Alternating input voltage V <sub>RMS</sub> V	Repetetive peak reverse voltage V <sub>RRM</sub> V
DBI 15-005	35	50
DBI 15-01	70	100
DBI 15-02	140	200
DBI 15-04	280	400
DBI 15-06	420	600
DBI 15-08	560	800
DBI 15-10	700	1000
DBI 15-12	800	1200
DBI 15-14	900	1400
DBI 15-16	1000	1600

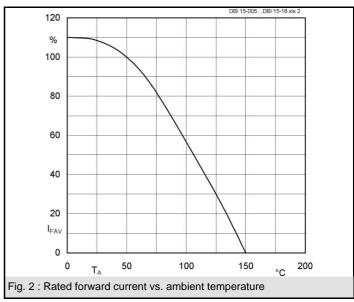
Absolute Maximum Ratings T <sub>c</sub> = 25 °C unless otherwise specified					
Symbol	Conditions	Values	Units		
I <sub>FRM</sub>	Repetitive peak forward current; f > 15 Hz <sup>1)</sup>	80	Α		
I²t	Rating for fusing, t < 10 ms	310	A²s		
I <sub>FSM</sub>	Peak forward surge current, 50 Hz half sine-wave $T_A$ = 25 °C	250	А		
I <sub>FAV</sub>	Max. averaged fwd. current, R-load, T <sub>A</sub> = 50 °C <sup>1)</sup>	2,5	А		
I <sub>FAV</sub>	Max. averaged fwd. current, C-load, T <sub>A</sub> = 50 °C <sup>1)</sup>	2,5	А		
I <sub>FAV</sub>	Max. current with cooling fin, R-load, T <sub>C</sub> = 100 °C <sup>2)</sup>	15	А		
I <sub>FAV</sub>	Max. current with cooling fin, C-load, T <sub>C</sub> = 100 °C <sup>2)</sup>	15	А		
R <sub>thA</sub>	Thermal resistance junction to ambient 1)	8	K/W		
R <sub>thC</sub>	Thermal resistance junction to case 1)	4,1	K/W		
Τ <sub>i</sub>	Operating junction temperature	- 50 + 150 °C	°C		
T <sub>s</sub>	Storage temperature	- 50 + 150 °C	°C		

Characteristics T		T <sub>c</sub> = 25 °C unless otherwise specified		
Symbol	Conditions		Values	Units
V <sub>F</sub>	Maximum forward. voltage, $T_j = 25 ^{\circ}\text{C}; I_F = 7,5 \text{A}$		1,1	V
I <sub>R</sub>	Maximum Leakage current, $T_j = 25 \text{ °C; } V_R = V_{RRM}$		10	μА
С	Typical junction capacitance per leg at V, MHz			pF



## DBI 15-005 ... DBI 15-16







2 15-10-2004 SCT © by SEMIKRON