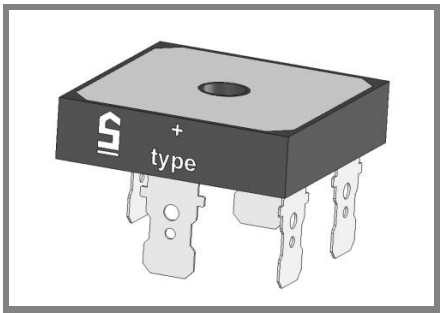
DB 15-005 ... DB 15-16



Square bridge

Three-Phase Si-Bridge Rectifiers

DB 15-005 ... DB 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_{ISO} > 2500 V

Mechanical Data

- Plastic case with alu-bottom
- Dimensions: 28,5 28,5 10 mm
- Weight approx. 23 g
- Standard packaging: bulk
- Terminals: plated terminals solderable per IEC 68-2-20
- Mounting position: any
- Admissible torque for mounting (M 5): 2 (± 10%) Nm

Type	Alternating input voltage V_{RMS} V	Repetetive peak reverse voltage V_{RRM} V
DB 15-005	35	50
DB 15-01	70	100
DB 15-02	140	200
DB 15-04	280	400
DB 15-06	420	600
DB 15-08	560	800
DB 15-10	700	1000
DB 15-12	800	1200
DB 15-14	900	1400
DB 15-16	1000	1600

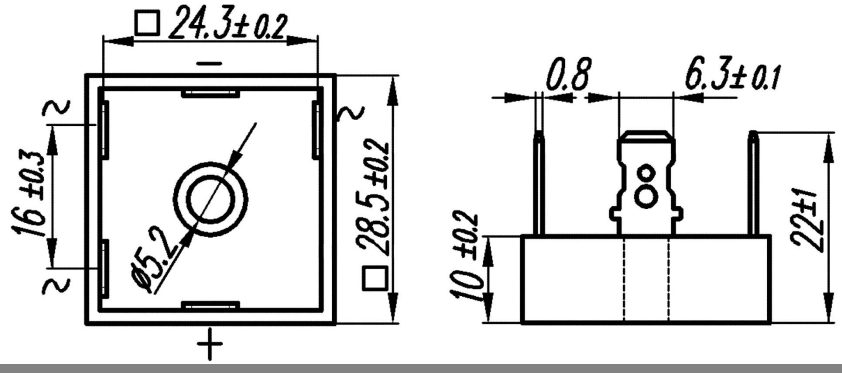
Absolute Maximum Ratings T_c = 25 °C unless otherwise specified

Symbol	Conditions	Values	Units
I_{FRM}	Repetitive peak forward current; f > 15 Hz[1)]	80	A
I^2t	Rating for fusing, t < 10 ms	310	A^2s
I_{FSM}	Peak forward surge current, 50 Hz half sine-wave T_A = 25 °C	250	A
I_{FAV}	Max. averaged fwd. current, R-load, T_A = 50 °C [1)]	not applicable	A
I_{FAV}	Max. averaged fwd. current, C-load, T_A = 50 °C [1)]	not applicable	A
I_{FAV}	Max. current with cooling fin, R-load, T_C = 100 °C [2)]	15	A
I_{FAV}	Max. current with cooling fin, C-load, T_C = 100 °C [2)]	15	A
R_{thA}	Thermal resistance junction to ambient [1)]		K/W
R_{thC}	Thermal resistance junction to case [1)]	3,3	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}	50	µA
C_J	Typical junction capacitance per leg at V, MHz		pF

Dimensions in mm



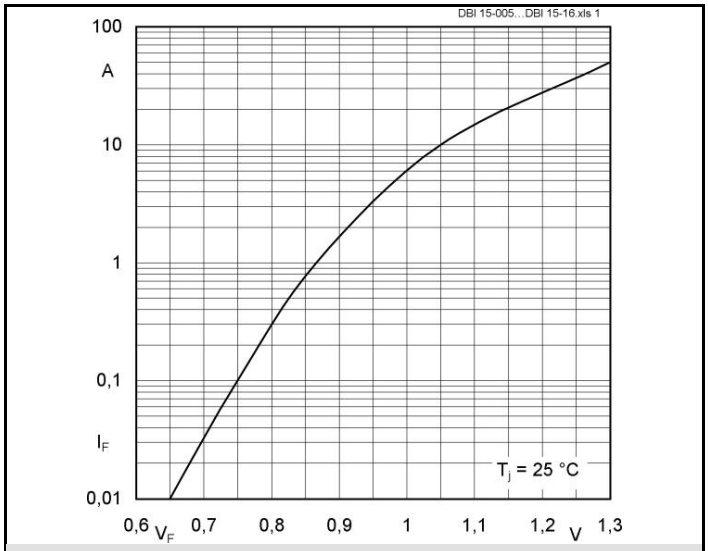


Fig. 1 : Forward characteristics (typical values)

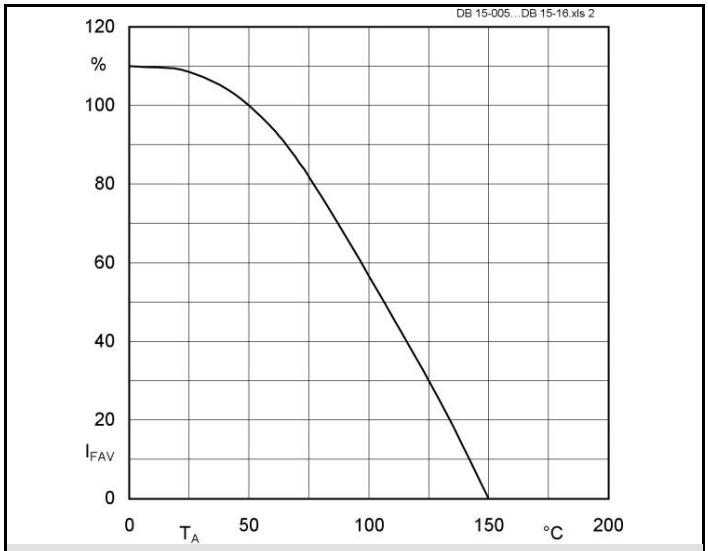


Fig. 2 : Rated forward current vs. ambient temperature

