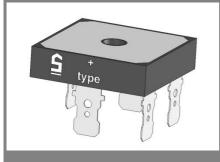# DB 35-005 ... DB 35-16

Square bridge

Three-Phase Si-Bridge Rectifiers

DB 35-005 ... DB 35-16

Forward Current: 35 A

Reverse Voltage: 50 to 1600 V

Publish Data

Features

- Max. solder temperature: 260 °C, max. 5s
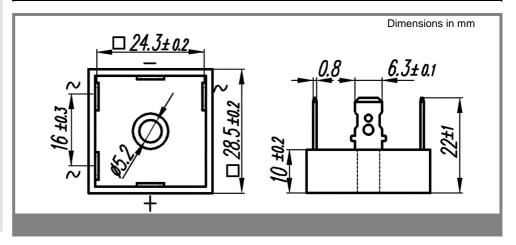- UL recognized, file no. E63532
- V_{ISO} > 2500 V

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
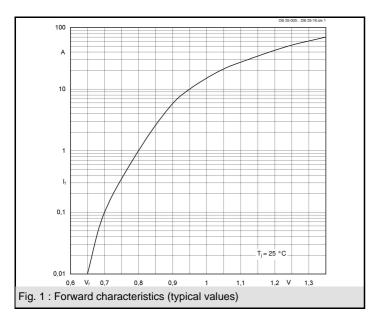- Admissible torque for mounting (M 5): 2 (± 10%) Nm

Type	Alternating input voltage V_{RMS} V	Repetetive peak reverse voltage V_{RRM} V
DB 35-005	35	50
DB 35-01	70	100
DB 35-02	140	200
DB 35-04	280	400
DB 35-06	420	600
DB 35-08	560	800
DB 35-10	700	1000
DB 35-12	800	1200
DB 35-14	900	1400
DB 35-16	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]	120	A
I^2t	Rating for fusing, t < 10 ms	1000	A²s
I_{FSM}	Peak forward surge current, 50 Hz half sine-wave T_A = 25 °C	450	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]	35	A
I_{FAV}	Max. current with cooling fin, C-load, T_C = 100 °C [2]	35	A
R_{thA}	Thermal resistance junction to ambient [1]		K/W
R_{thC}	Thermal resistance junction to case [1]	1,8	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 = 17,5 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

23-03-2005 SCT

DB 35-005...DB 35-16.xls 1

$T_j = 25\ °C$

Fig. 1 : Forward characteristics (typical values)

DB 35-005...DB 35-16.xls 2

Fig. 2 : Rated forward current vs. ambient temperature

23-03-2005 SCT