



SEMITOP® 2

Bridge Rectifier

SK100B

Target Data

Features

- Compact design
- One screw mounting
- Heat transfer and insulation through direct copper bonded aluminium oxide ceramic (DCB)
- Up 1600V reverse voltage
- High surge current
- Glass passivated diode chips
- UL recognized, file no. E 63 532

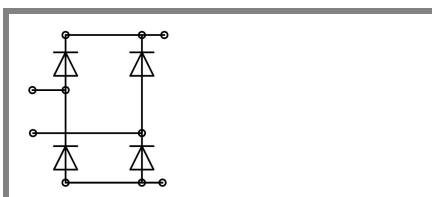
Typical Applications*

- Input rectifier for power supplies
- Rectifier

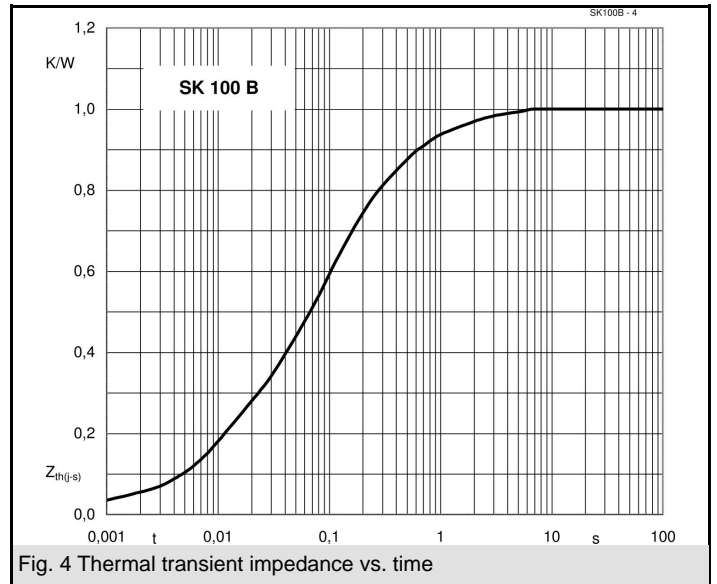
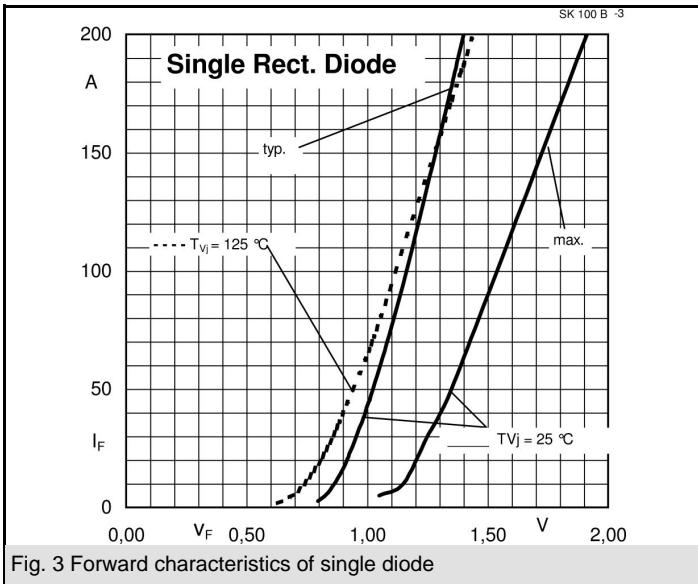
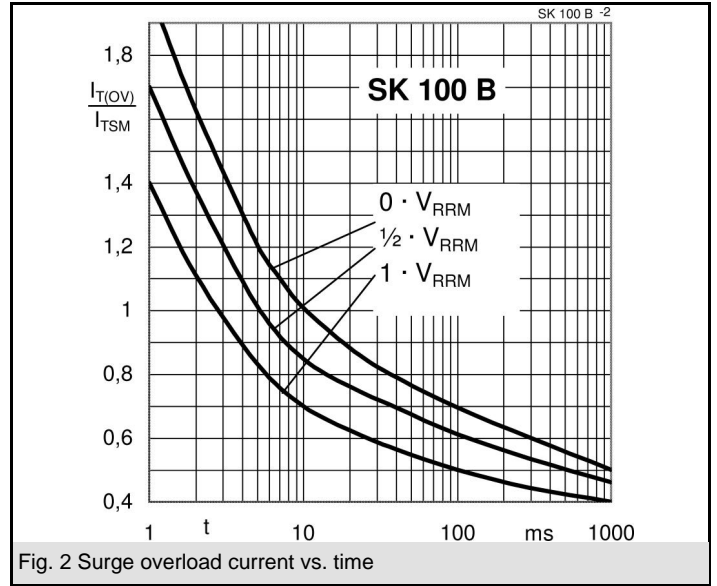
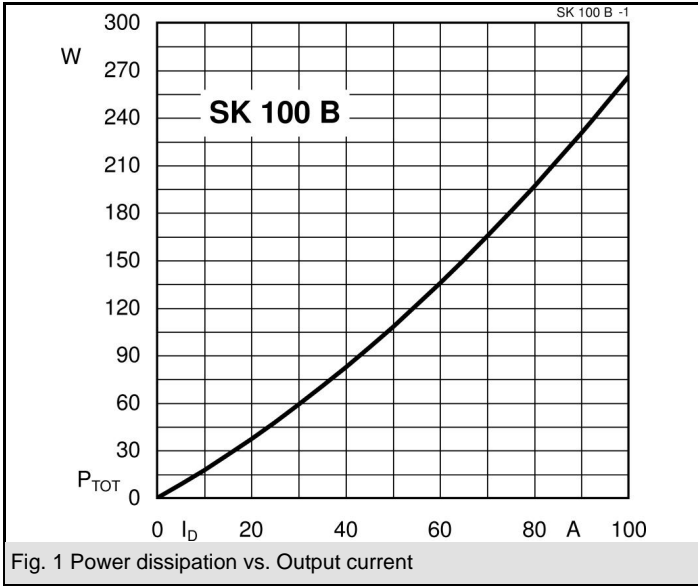
1) V_F , $V_{(TO)}$, r_T = chip level value

| V_{RSM} V | V_{RRM} , V_{DRM} V | $I_D = 100$ A (full conduction) ($T_s = 80$ °C) |
|----------------|----------------------------|---|
| 900 | 800 | SK100B08 |
| 1300 | 1200 | SK100B12 |
| 1700 | 1600 | SK100B16 |

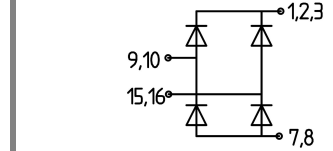
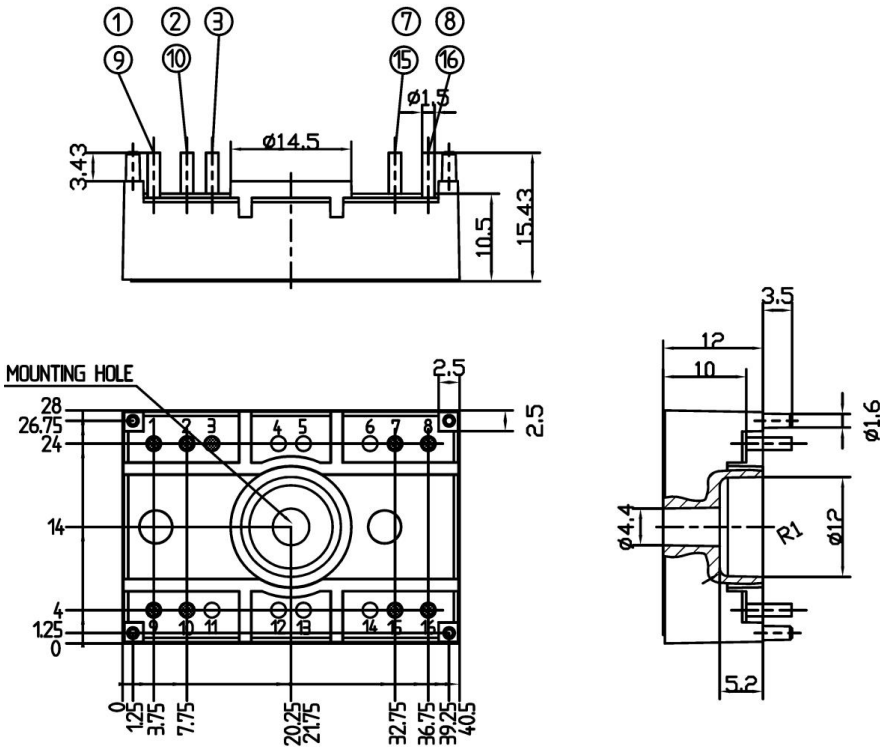
| Symbol | Conditions | Values | Units |
|---------------|---|---------------|--------------------------------------|
| I_D | $T_s = 80$ °C | 100 | A |
| I_{FSM} | $T_{vj} = 25$ °C; 10 ms $T_{vj} = 150$ °C; 10 ms | 1000 890 | A A |
| i^2t | $T_{vj} = 25$ °C; 8,3...10 ms $T_{vj} = 125$ °C; 8,3...10 ms | 5000 3960 | A ² s A ² s |
| V_F | $T_{vj} = 25$ °C; $I_F = 40$ A | max. 1,21 | V |
| $V_{(TO)}$ | $T_{vj} = 125$ °C | max. 0,83 | V |
| r_T | $T_{vj} = 125$ °C | max. 3,9 | mΩ |
| I_{RD} | $T_{vj} = 150$ °C; $V_{DD} = V_{DRM}$; $V_{RD} = V_{RRM}$ | max. 1,1 | mA mA |
| $R_{th(f-s)}$ | per diode per module | 1 0,25 | K/W K/W |
| T_{solder} | terminals, 10s | 260 | °C |
| T_{vj} | | -40...+150 | °C |
| T_{stg} | | -40...+125 | °C |
| V_{isol} | a. c. 50 Hz; r.m.s.; 1 s / 1 min. | 3000 (2500) | V |
| M_s | mounting torque to heatsink | 2 | Nm |
| M_t | | | |
| m | approx. weight | 19 | g |
| Case | SEMITOP® 2 | T 6 | |



B



Dimensions in mm



Case T97

B

Case T97 (Suggested hole diameter, in the PCB, for solder pins and plastic mounting pins = 2mm)

* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.