



**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

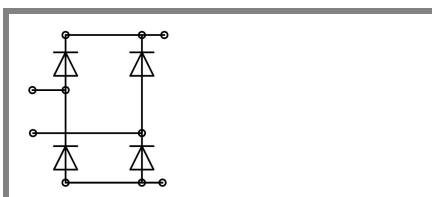
### Typical Applications\*

- Input rectifier for power supplies
- Rectifier

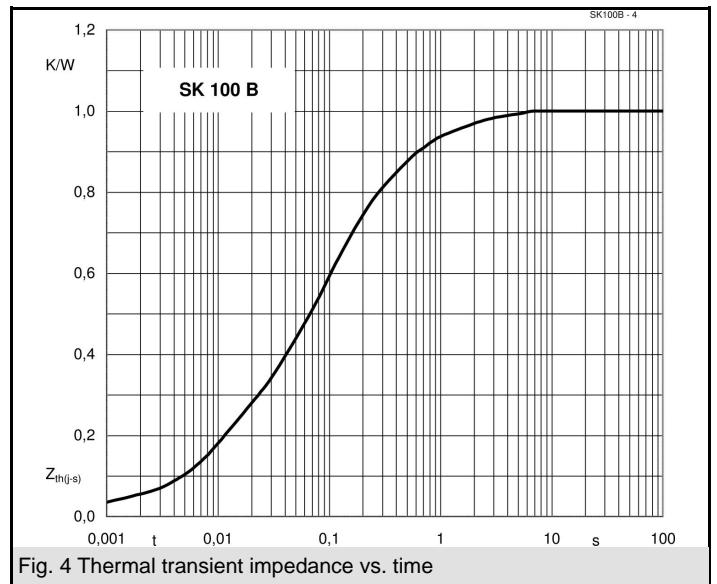
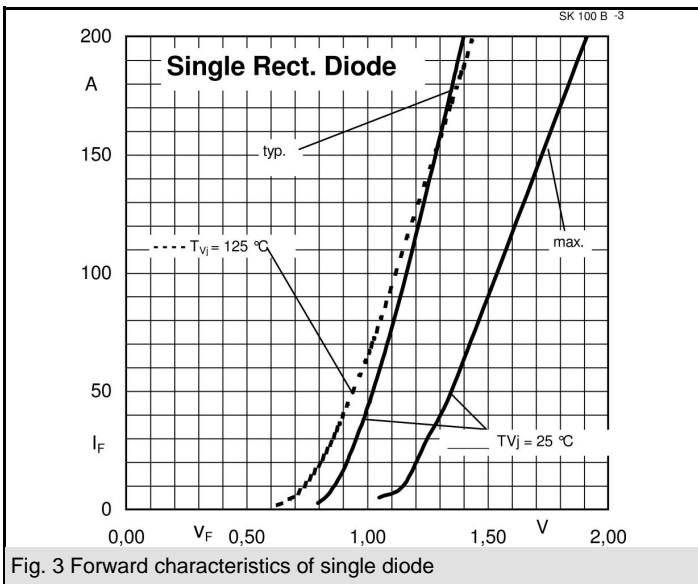
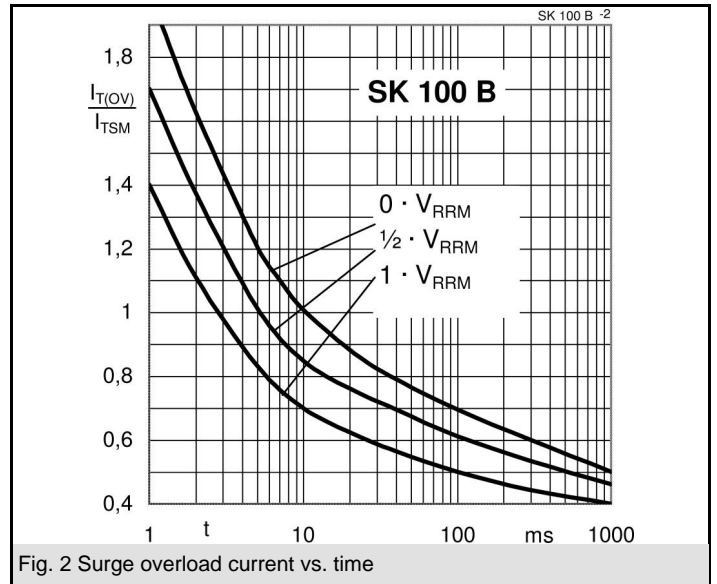
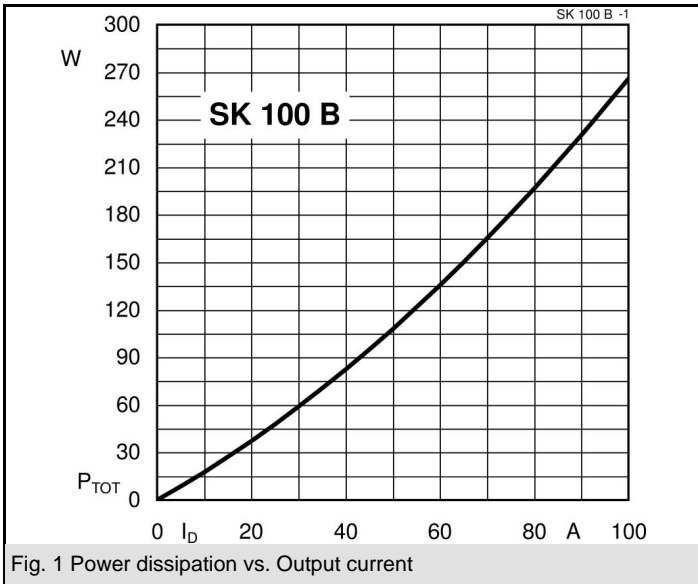
1)  $V_F$ ,  $V_{(TO)}$ ,  $r_T$  = chip level value

$V_{RSM}$ 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

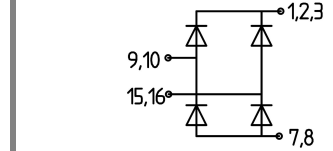
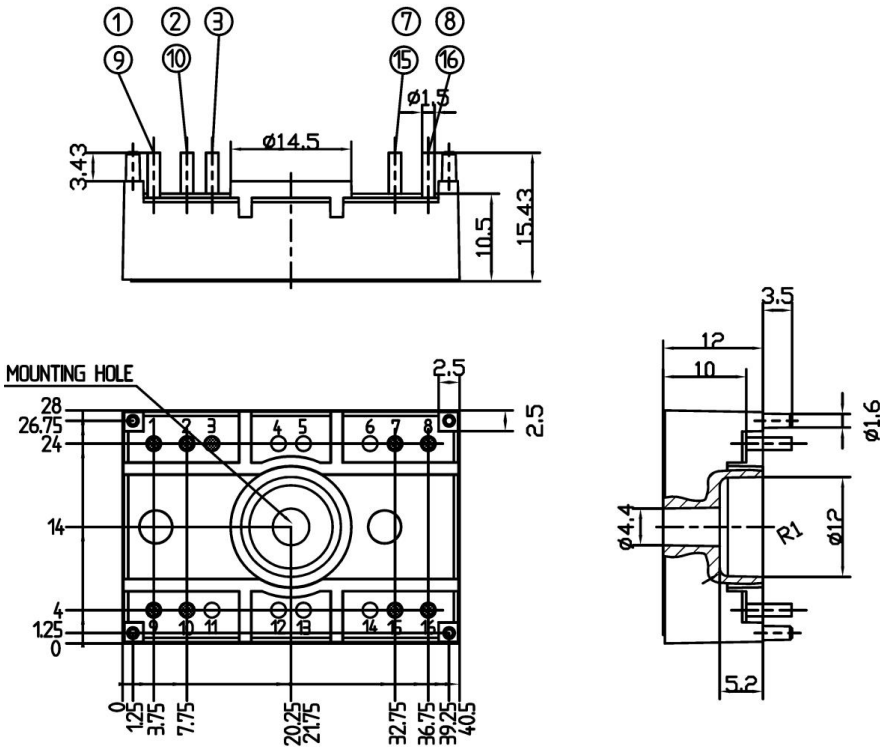
Symbol	Conditions	Values	Units
$I_D$	$T_s = 80$ °C	100	A
$I_{FSM}$	$T_{vj} = 25$ °C; 10 ms $T_{vj} = 150$ °C; 10 ms	1000 890	A A
$i^2t$	$T_{vj} = 25$ °C; 8,3...10 ms $T_{vj} = 125$ °C; 8,3...10 ms	5000 3960	A <sup>2</sup> s A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C; $I_F = 40$ A	max. 1,21	V
$V_{(TO)}$	$T_{vj} = 125$ °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.