

# SKBa B500/445-4



## Avalanche Bridge Rectifiers

### SKBa B500/445-4

#### Features

- Square plastic case with screw terminals
- High blocking voltage
- With avalanche characteristics

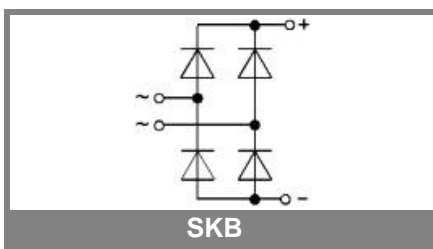
#### Typical Applications

- Internal power supplies for electronic equipment
- Electronic control equipment
- DC motors
- Field rectifiers for DC motors
- Battery charger rectifiers
- Inductive loads: Solenoids, Motor brakes

- 1) Freely suspended or mounted on an insulator
- 2) Mounted on a painted metal sheet of min. 250 x 250 x 1 mm

$V_{(BR) \min}$ V	$V_{VRMS}$ V	$I_D = 5 \text{ A}$ ( $T_a = 45 \text{ }^\circ\text{C}$ ) Types	$C_{\max}$ $\mu\text{F}$	$R_{\min}$ $\Omega$
1300	500	SKBa B500/445-4		2

Symbol	Conditions	Values	Units
$I_D$	$T_a = 45 \text{ }^\circ\text{C}$ , isolated <sup>1)</sup>	5	A
	$T_a = 45 \text{ }^\circ\text{C}$ , chassis <sup>2)</sup>	5	A
$I_{DCL}$	$T_a = 45 \text{ }^\circ\text{C}$ , isolated <sup>1)</sup>	4	A
	$T_a = 45 \text{ }^\circ\text{C}$ , chassis <sup>2)</sup>	4	A
$I_{FSM}$	$T_{vj} = 25 \text{ }^\circ\text{C}$ , 10 ms	180	A
	$T_{vj} = 150 \text{ }^\circ\text{C}$ , 10 ms	150	A
$i^2t$	$T_{vj} = 25 \text{ }^\circ\text{C}$ , 8,3 ... 10 ms	160	A <sup>2</sup> s
	$T_{vj} = 150 \text{ }^\circ\text{C}$ , 8,3 ... 10 ms	110	A <sup>2</sup> s
$P_{RSM}$	$t_p = 10 \mu\text{s}$	3000	W
$V_F$	$T_{vj} = 25 \text{ }^\circ\text{C}$ , $I_F = 80 \text{ A}$	max. 2,65	V
$V_{(TO)}$	$T_{vj} = 150 \text{ }^\circ\text{C}$	0,8	V
$r_T$	$T_{vj} = 150 \text{ }^\circ\text{C}$	24	m $\Omega$
$I_{RD}$	$T_{vj} = 25 \text{ }^\circ\text{C}$ , $V_{RD} = V_{(BR) \min}$	10	$\mu\text{A}$
$I_{RD}$	$T_{vj} = 150 \text{ }^\circ\text{C}$ , $V_{RD} = V_{(BR) \min}$	0,6	mA
$t_{rr}$	$T_{vj} = 25 \text{ }^\circ\text{C}$	10	$\mu\text{s}$
$f_G$		2000	Hz
$R_{th(j-a)}$	isolated <sup>1)</sup>	13	K/W
$T_{vj}$		- 40 ... + 150	$^\circ\text{C}$
$T_{stg}$		- 55 ... + 150	$^\circ\text{C}$
$M_s$	to heatsink	1,5 $\pm$ 15%	Nm
$M_t$	to terminals	1 $\pm$ 15 %	Nm
m		60	g
$F_u$		6	A
Case		G 8	



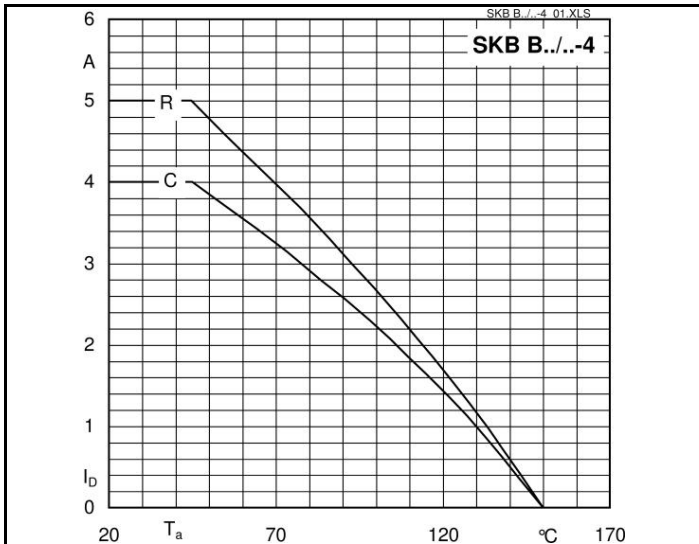


Fig. 1 Rated output current vs. ambient temperature

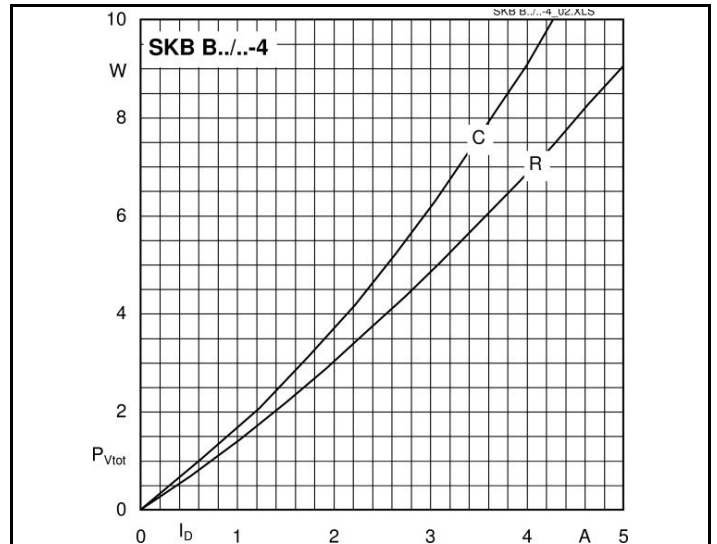


Fig. 2 Power dissipation vs. output current

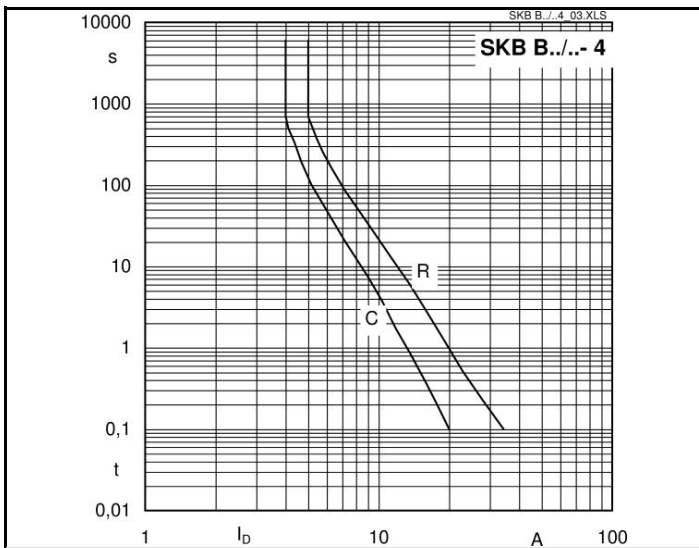


Fig. 6 Rated overload characteristics vs. time

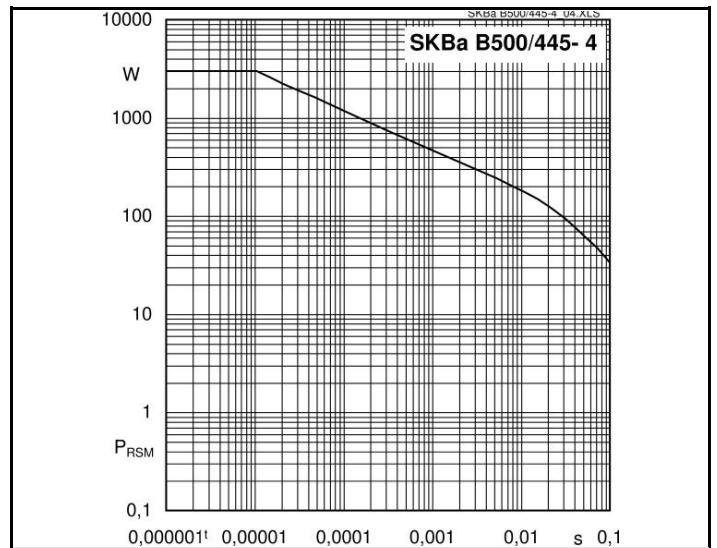


Fig. 7 Rated reverse power dissipation vs. time

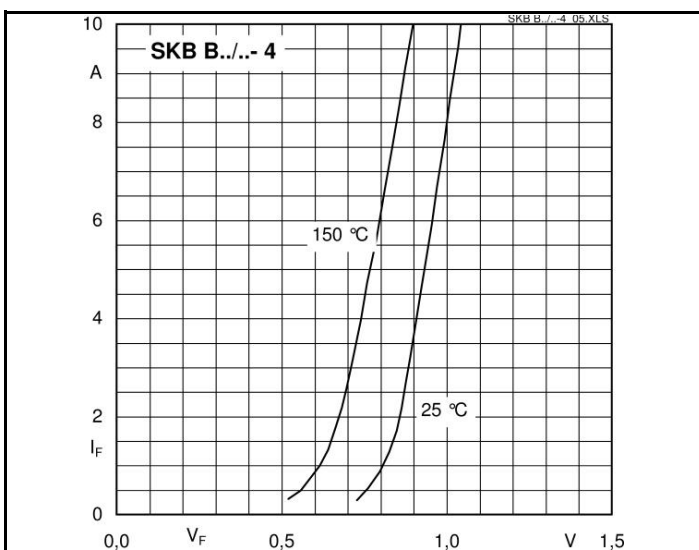
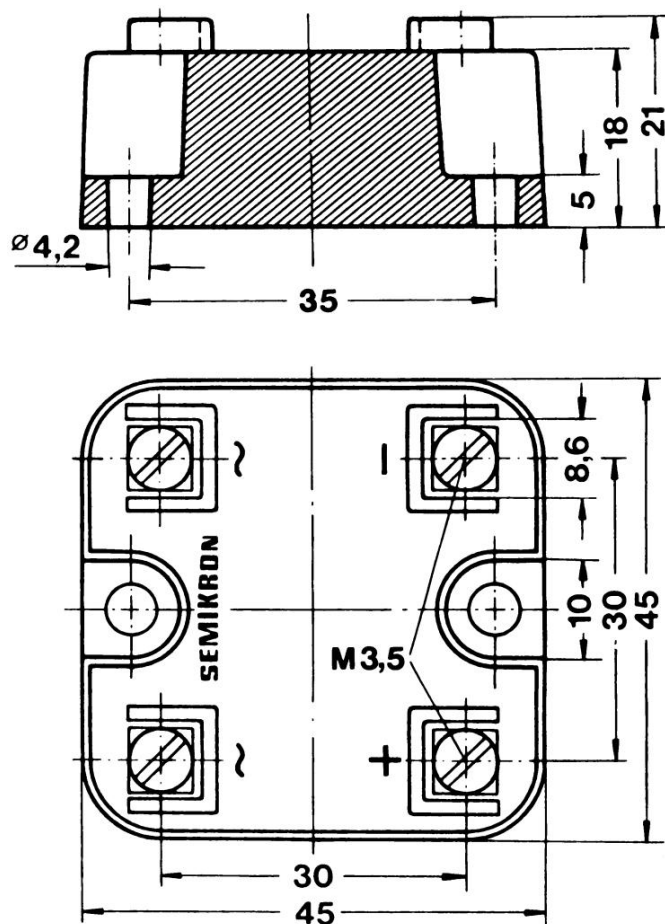


Fig. 9 Forward characteristics of a diode arm



Case G 8

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