

SKBa B500/445-4



Avalanche Bridge Rectifiers

SKBa B500/445-4

Features

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

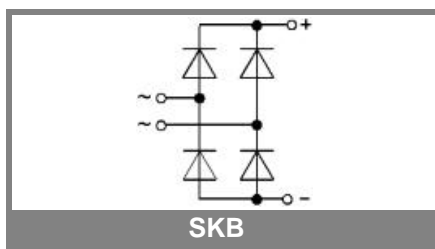
Typical Applications

- 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} μF	R_{\min} Ω
1300	500	SKBa B500/445-4		2

Symbol	Conditions	Values	Units
I_D	$T_a = 45 \text{ }^\circ\text{C}$, isolated ¹⁾	5	A
	$T_a = 45 \text{ }^\circ\text{C}$, chassis ²⁾	5	A
I_{DCL}	$T_a = 45 \text{ }^\circ\text{C}$, isolated ¹⁾	4	A
	$T_a = 45 \text{ }^\circ\text{C}$, chassis ²⁾	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 ² s
	$T_{vj} = 150 \text{ }^\circ\text{C}$, 8,3 ... 10 ms	110	A ² 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 Ω
I_{RD}	$T_{vj} = 25 \text{ }^\circ\text{C}$, $V_{RD} = V_{(BR) \min}$	10	μA
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	μs
f_G		2000	Hz
$R_{th(j-a)}$	isolated ¹⁾	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	



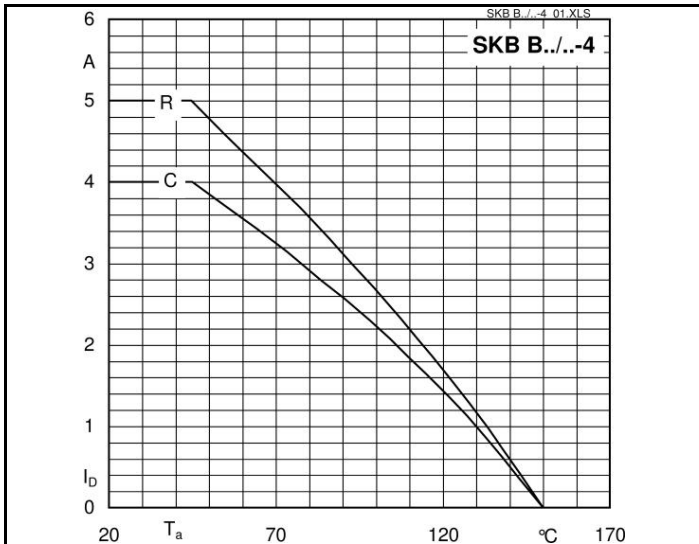


Fig. 1 Rated output current vs. ambient temperature

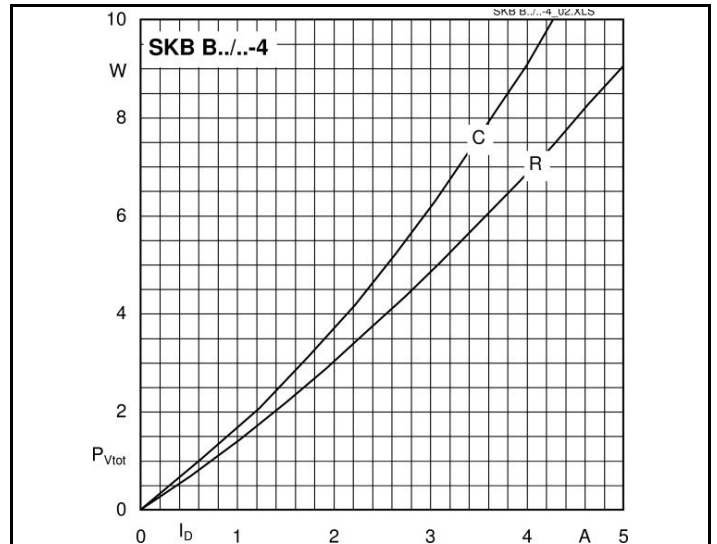


Fig. 2 Power dissipation vs. output current

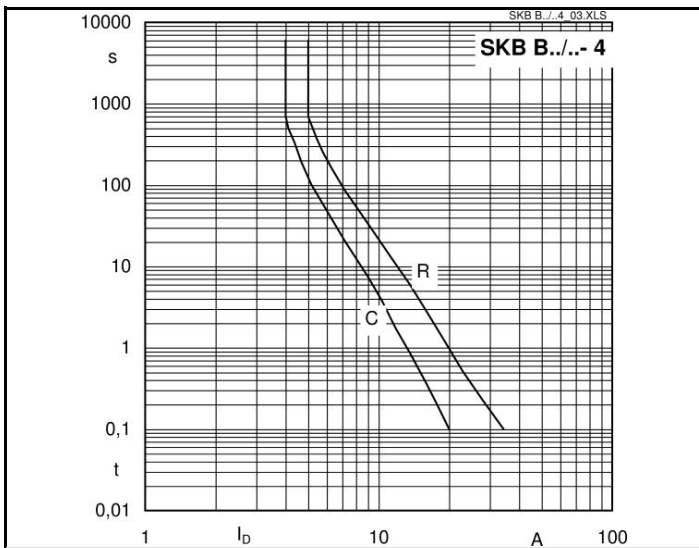


Fig. 6 Rated overload characteristics vs. time

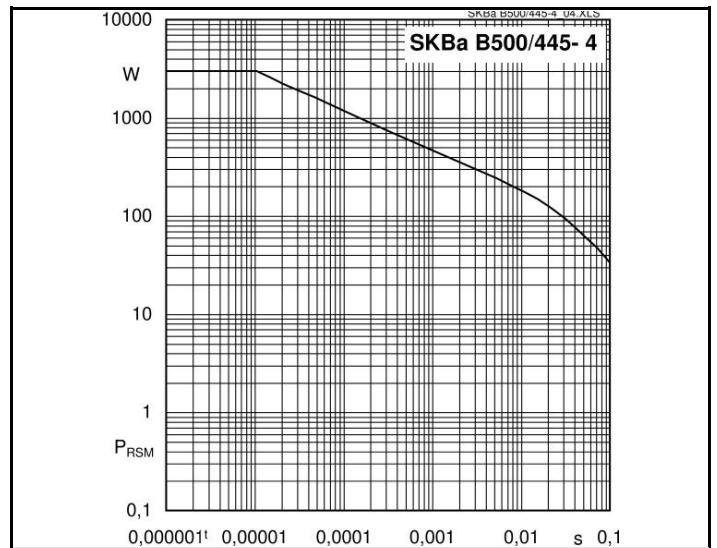


Fig. 7 Rated reverse power dissipation vs. time

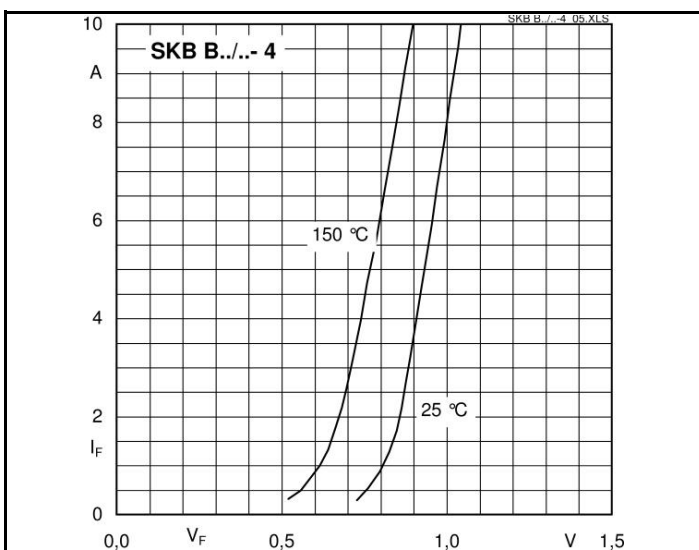
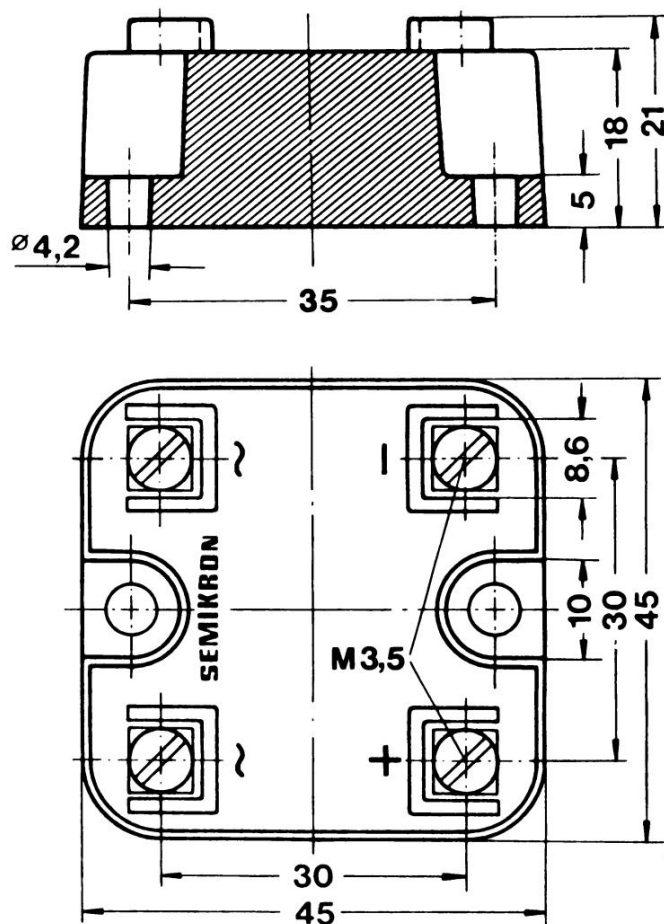


Fig. 9 Forward characteristics of a diode arm



Case G 8

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