



## Power Bridge Rectifiers

### SKB 15

#### Features

- Square plastic case with screw terminals
- Blocking voltage up to 1600 V
- Metal baseplate for improved heat transfer

#### Typical Applications

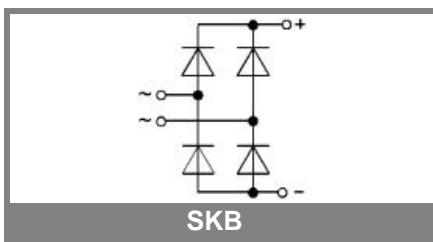
- Internal power supplies for electronic equipment
- Electronic control equipment
- DC motors
- Field rectifiers for DC motors
- Battery charger rectifiers
- Recommended snubber network:  
RC: 100 nF, 20...50 Ω ( $P_R = 1 \text{ W}$ )

1) Freely suspended or mounted on an insulator

2) Mounted on apainted metal sheet of min. 250 x 250 x 1 mm

$V_{RSM}, V_{RRM}$ V	$V_{VRMS}$ V	$I_D = 15 \text{ A } (T_c = 117^\circ\text{C})$ Types	$C_{max}$ μF	$R_{min}$ Ω
200	60	SKB 15/02 A2		0,15
400	125	SKB 15/04 A2		0,3
800	250	SKB 15/08 A2		0,5
1200	380	SKB 15/12 A2		0,75
1400	440	SKB 15/14 A2		0,9
1600	500	SKB 15/16 A2		1

Symbol	Conditions	Values	Units
$I_D$	$T_a = 45^\circ\text{C}$ , isolated <sup>1)</sup> $T_a = 45^\circ\text{C}$ , chassis <sup>2)</sup>	5 11	A A
$I_{DCL}$	$T_a = 45^\circ\text{C}$ , isolated <sup>1)</sup> $T_a = 45^\circ\text{C}$ , chassis <sup>2)</sup> $T_a = 45^\circ\text{C}$ , P5A/100	4 9 14	A A A
$I_{FSM}$	$T_{vj} = 25^\circ\text{C}$ , 10 ms $T_{vj} = 150^\circ\text{C}$ , 10 ms	370 320	A A
$i^2t$	$T_{vj} = 25^\circ\text{C}$ , 8,3 ... 10 ms $T_{vj} = 150^\circ\text{C}$ , 8,3 ... 10 ms	680 500	A <sup>2</sup> s A <sup>2</sup> s
$V_F$	$T_{vj} = 25^\circ\text{C}$ , $I_F = 150 \text{ A}$	max. 2,2	V
$V_{(TO)}$	$T_{vj} = 150^\circ\text{C}$	max. 0,85	V
$r_T$	$T_{vj} = 150^\circ\text{C}$	max. 12	mΩ
$I_{RD}$	$T_{vj} = 25^\circ\text{C}$ , $V_{RD} = V_{RRM}$ $T_{vj} = ^\circ\text{C}$ , $V_{RD} = V_{RRM} \geq V$	300	μA μA
$I_{RD}$	$T_{vj} = 150^\circ\text{C}$ , $V_{RD} = V_{RRM}$ $T_{vj} = ^\circ\text{C}$ , $V_{RD} = V_{RRM} \geq V$	5	mA mA
$t_{tr}$	$T_{vj} = 25^\circ\text{C}$	10	μs
$f_G$		2000	Hz
$R_{th(j-a)}$	isolated <sup>1)</sup> chassis <sup>2)</sup>	12 4,3	K/W K/W
$R_{th(j-c)}$	total	1	K/W
$R_{th(c-s)}$	total	0,3	K/W
$T_{vj}$		- 40 + 150	°C
$T_{stg}$		- 55 ... + 150	°C
$V_{isol}$	a.c. 50 ... 60 Hz; r.m.s.; 1 s / 1 min.	3000/2500	V~
$M_s$	to heatsink	1,5 ± 15 %	Nm
$M_t$	to terminals	1 ± 15 %	Nm
$a$			m/s <sup>2</sup>
$w$		65	g
$F_u$		20	A
Case		G 9	



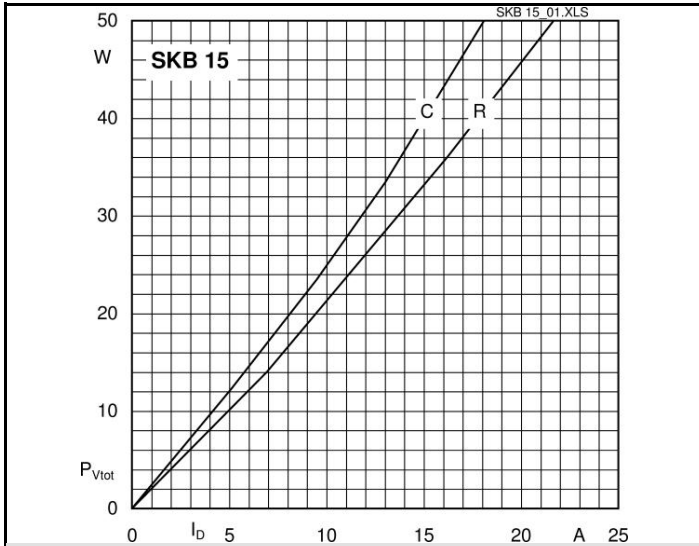


Fig. 1 Power dissipation vs. output current

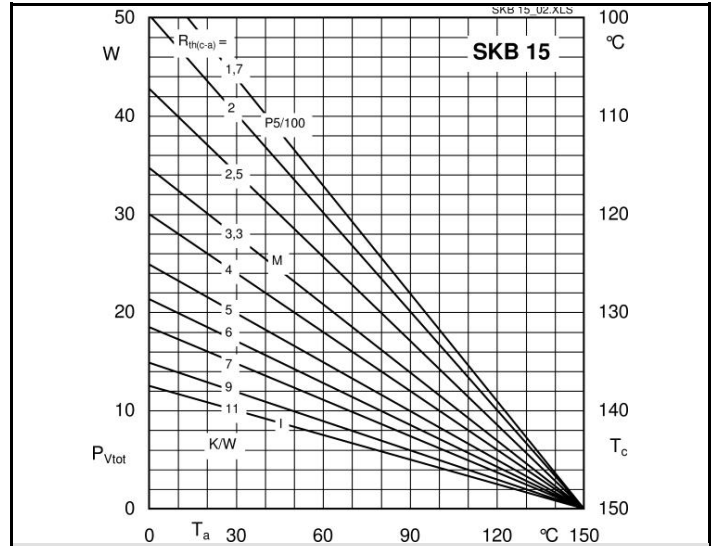


Fig. 2 Power dissipation vs. case temperature

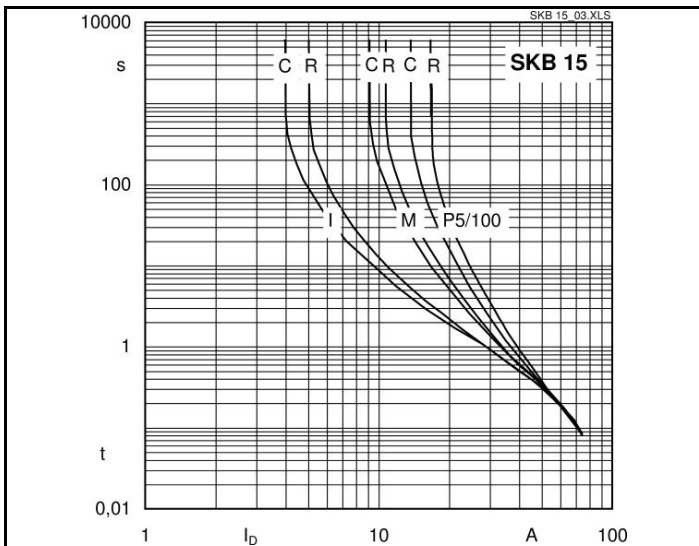


Fig. 6 Rated overload characteristics vs. time

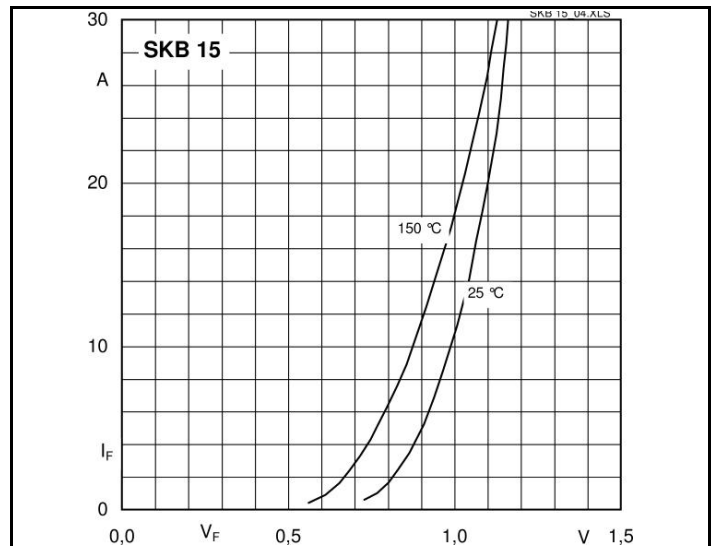
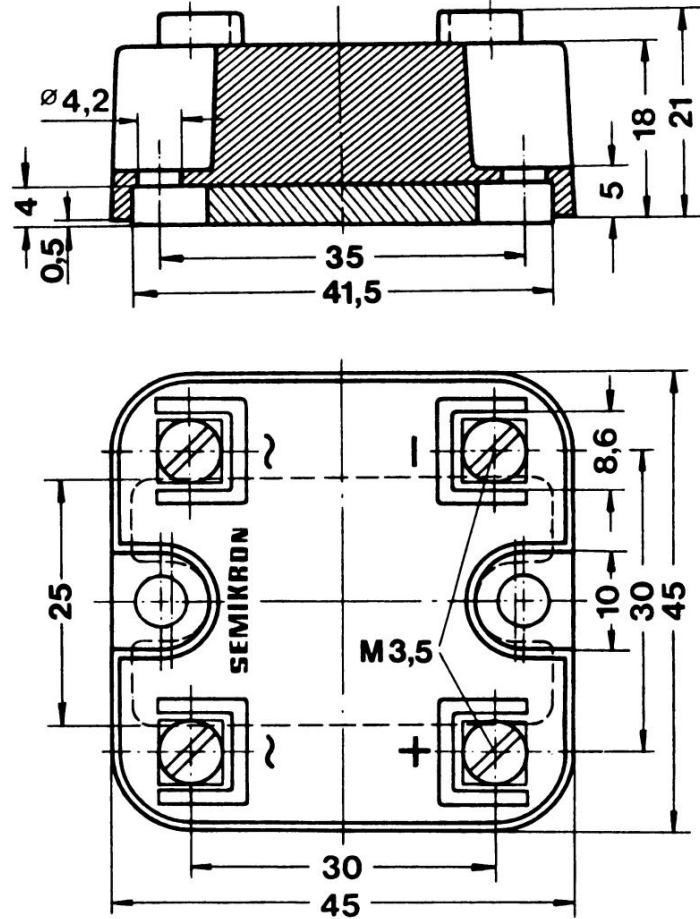


Fig. 9 Forward characteristics of a diode arm



Case G 9

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