



## Power Bridge Rectifiers

### SKB 25

#### Features

- Square plastic case with isolated metal base plate and fast-on connectors
- Blocking voltage up to 1600 V
- High surge current
- Easy chassis mounting
- UL recognized, file no. E 63 532

#### Typical Applications

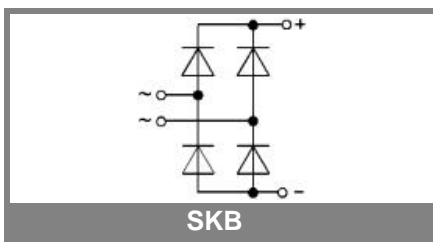
- Rectifier for power supplies
- Input rectifier for variable frequency drives
- Rectifier for DC motor field supplies
- Battery charger rectifiers
- Recommended snubber network:  
RC: 50 Ω, 0.1 μF ( $P_R = 1 \text{ W}$ )

1) Freely suspended or mounted on an insulator

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

$V_{RSM}, V_{RRM}$ V	$V_{VRMS}$ V	$I_D = 17 \text{ A } (T_c = 75 \text{ °C})$ Types	$C_{max}$ μF	$R_{min}$ Ω
100		SKB 25/01		0,1
200		SKB 25/02		0,15
400		SKB 25/04		0,3
600		SKB 25/06		0,5
800		SKB 25/08		0,7
1200		SKB 25/12		1
1400		SKB 25/14		1,2
1600		SKB 25/16		1,5

Symbol	Conditions	Values	Units
$I_D$	$T_a = 45 \text{ °C, isolated}^{1)}$	3,5	A
	$T_a = 45 \text{ °C, chassis}^{2)}$	10	A
$I_{DCL}$	$T_a = 45 \text{ °C, isolated}^{1)}$	3	A
	$T_a = 45 \text{ °C, chassis}^{2)}$	9,5	A
$I_{FSM}$	$T_{vj} = 25 \text{ °C, 10 ms}$	370	A
	$T_{vj} = 150 \text{ °C, 10 ms}$	320	A
$i^2t$	$T_{vj} = 25 \text{ °C, 8,3 ... 10 ms}$	680	A <sup>2</sup> s
	$T_{vj} = 150 \text{ °C, 8,3 ... 10 ms}$	500	A <sup>2</sup> s
$V_F$	$T_{vj} = 25 \text{ °C, } I_F = 150 \text{ A}$	max. 2,2	V
$V_{(TO)}$	$T_{vj} = 150 \text{ °C}$	0,85	V
$r_T$	$T_{vj} = 150 \text{ °C}$	12	mΩ
$I_{RD}$	$T_{vj} = 25 \text{ °C, } V_{RD} = V_{RRM}$	300	μA
$I_{RD}$	$T_{vj} = 150 \text{ °C, } V_{RD} = V_{RRM}$	5	mA
$t_{tr}$	$T_{vj} = 25 \text{ °C}$	10	μs
$f_G$		2000	Hz
$R_{th(j-a)}$	isolated <sup>1)</sup>	15	K/W
	chassis <sup>2)</sup>	4,7	K/W
$R_{th(j-c)}$	total	2	K/W
$R_{th(c-s)}$	total	0,15	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	$2 \pm 15 \%$	Nm
$M_t$			Nm
m		24	g
Fu		20	A
Case		G 10a	



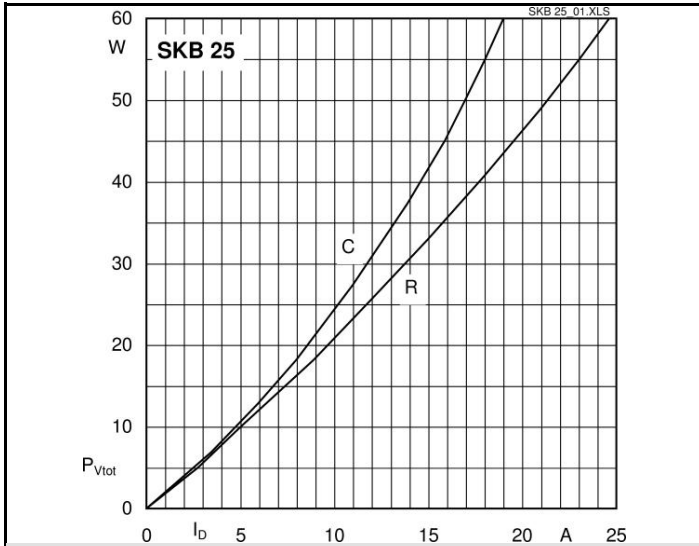


Fig. 3L Power dissipation vs. output current

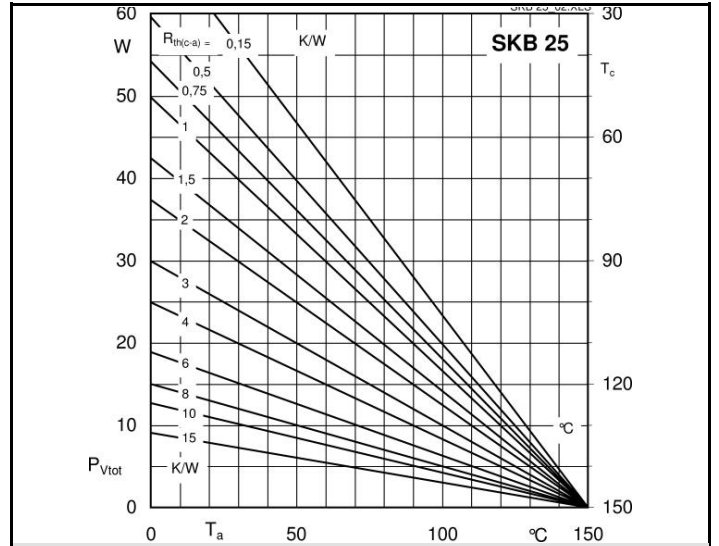


Fig. 3R Power dissipation vs. case temperature

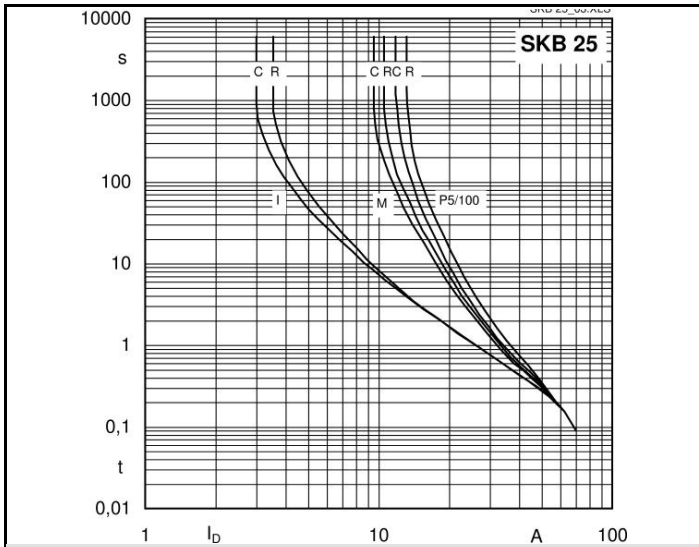


Fig. 6 Rated overload characteristics vs. time

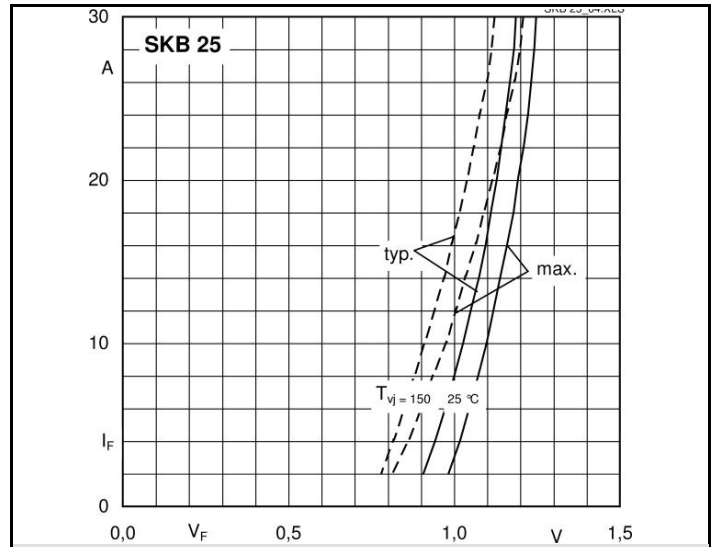
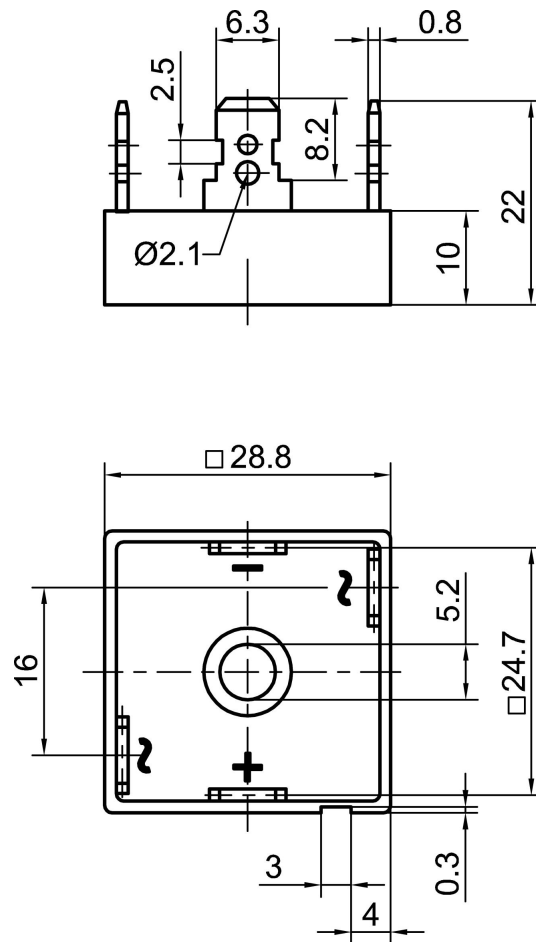


Fig. 9 Forward characteristics of a diode arm



Case G 10a

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