



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

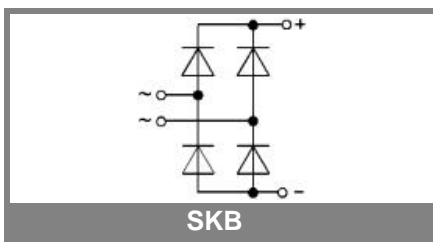
- Rectifier for power supplies
- Input rectifier for variable frequency drives
- Rectifier for DC motor field supplies
- Battery charger rectifiers
- Recommended snubber network:
RC: 50 Ω, 0.1 μF ($P_R = 1 \text{ W}$)

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	$I_D = 17 \text{ A } (T_c = 75^\circ\text{C})$ 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	$T_a = 45^\circ\text{C}$, isolated ¹⁾	3,5	A
	$T_a = 45^\circ\text{C}$, chassis ²⁾	10	A
I_{DCL}	$T_a = 45^\circ\text{C}$, isolated ¹⁾	3	A
	$T_a = 45^\circ\text{C}$, chassis ²⁾	9,5	A
I_{FSM}	$T_{vj} = 25^\circ\text{C}$, 10 ms	370	A
	$T_{vj} = 150^\circ\text{C}$, 10 ms	320	A
i^2t	$T_{vj} = 25^\circ\text{C}$, 8,3 ... 10 ms	680	A ² s
	$T_{vj} = 150^\circ\text{C}$, 8,3 ... 10 ms	500	A ² s
V_F	$T_{vj} = 25^\circ\text{C}$, $I_F = 150 \text{ A}$	max. 2,2	V
$V_{(TO)}$	$T_{vj} = 150^\circ\text{C}$	0,85	V
r_T	$T_{vj} = 150^\circ\text{C}$	12	mΩ
I_{RD}	$T_{vj} = 25^\circ\text{C}$, $V_{RD} = V_{RRM}$	300	μA
I_{RD}	$T_{vj} = 150^\circ\text{C}$, $V_{RD} = V_{RRM}$	5	mA
t_{tr}	$T_{vj} = 25^\circ\text{C}$	10	μs
f_G		2000	Hz
$R_{th(j-a)}$	isolated ¹⁾	15	K/W
	chassis ²⁾	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
F_u		20	A
Case		G 10a	



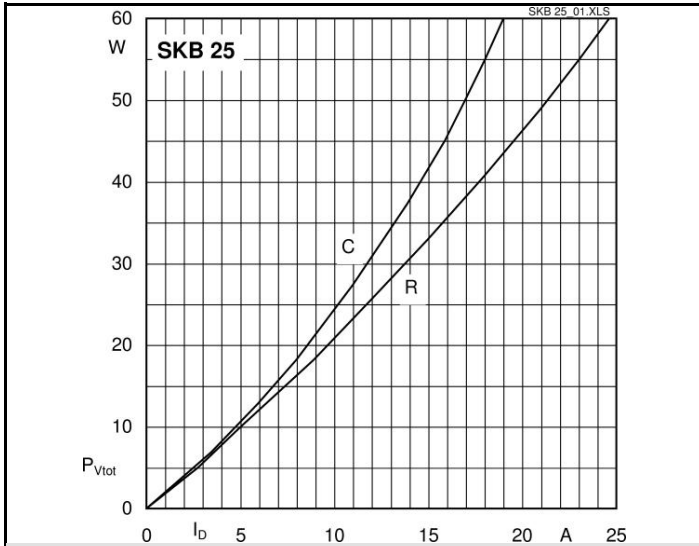


Fig. 3L Power dissipation vs. output current

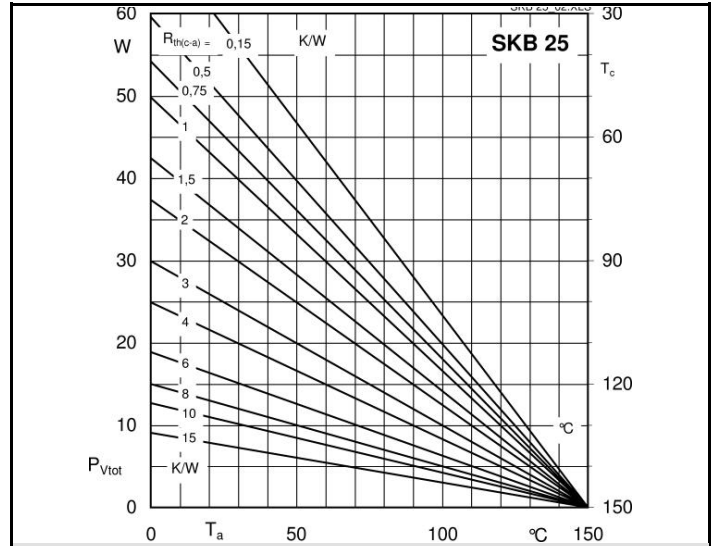


Fig. 3R Power dissipation vs. case temperature

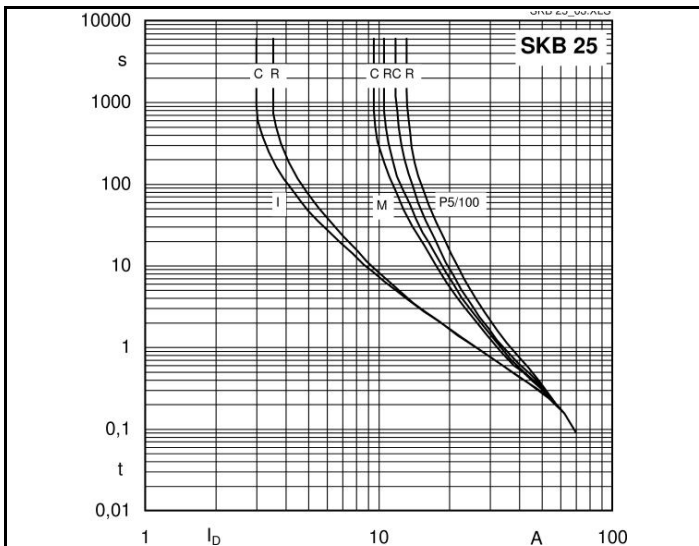


Fig. 6 Rated overload characteristics vs. time

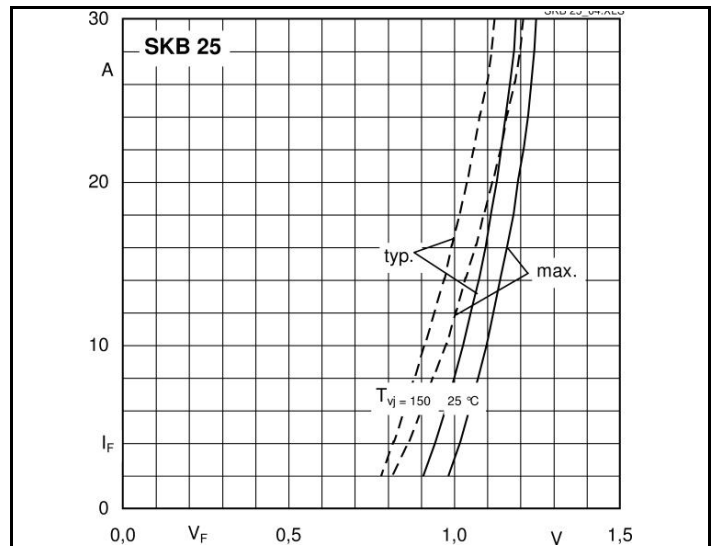
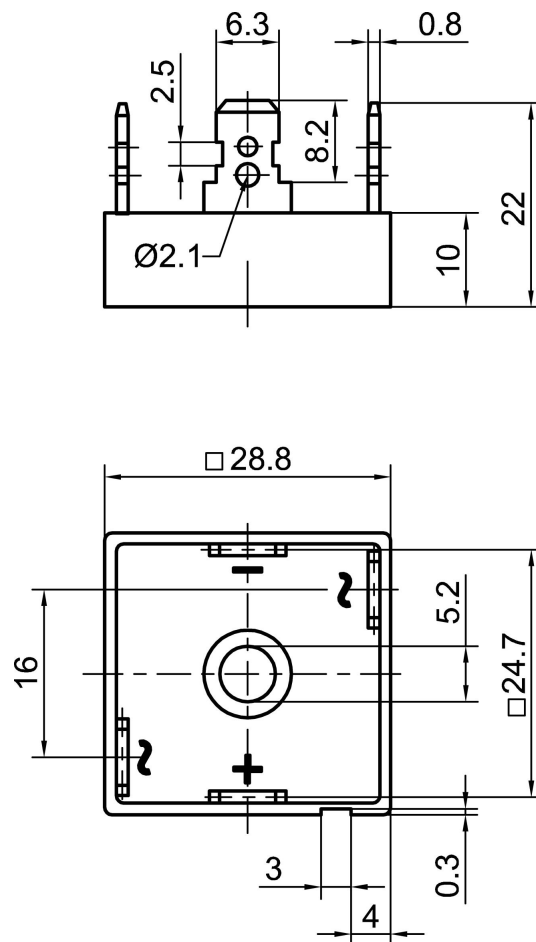


Fig. 9 Forward characteristics of a diode arm



Case G 10a

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