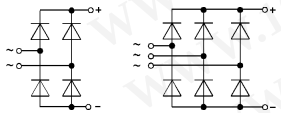
Power Bridge Rectifiers

SKB 25
SKD 25

V_{RSM} V_{RRM} V	I_D (T_{case} = ...) 17 A = (75 °C) Types	R_{min} Ω	20 A (73 °C) Types	R_{min} Ω
100	**SKB 25/01**	0,1	–	–
200	**SKB 25/02**	0,15	**SKD 25/02**	0,15
400	**SKB 25/04**	0,3	**SKD 25/04**	0,3
600	**SKB 25/06**	0,5	–	–
800	**SKB 25/08**	0,7	**SKD 25/08**	0,7
1200	**SKB 25/12**	1	**SKD 25/12**	1
1400	**SKB 25/14**	1,2	**SKD 25/14**	1,2
1600	**SKB 25/16**	1,5	**SKD 25/16**	1,5

Symbol	Conditions		SKB 25	SKD 25	Units
I_D	T_{amb} = 45 °C;	isolated[1]	3,5	3,5	A
		chassis[2]	10	12	A
		R4A/120	14	15	A
		P1A/120	17	20	A
I_{DCL}	T_{amb} = 45 °C;	isolated[1]	3	3,5	A
		chassis[2]	9,5	12	A
		R4A/120	12	15	A
		P1A/120	14	20	A
I_{FSM}	T_{vj} = 25 °C, 10 ms		370		A
	T_{vj} = 150 °C, 10 ms		320		A
i^2t	T_{vj} = 25 °C, 8,3...10 ms		680		A^2s
	T_{vj} = 150 °C, 8,3...10 ms		500		A^2s
V_F	T_{vj} = 25 °C; I_F = 150 A		2,2		V
$V_{(TO)}$	T_{vj} = 150 °C		0,85		V
r_T	T_{vj} = 150 °C		12		mΩ
I_{RD}	T_{vj} = 25 °C; V_{RD} = V_{RRM}		0,3		mA
	T_{vj} = 150 °C; V_{RD} = V_{RRM}		5		mA
t_{rr}	T_{vj} = 25 °C		typ. 10		µs
f_G			2000		Hz
R_{thjc}	total		2	1,75	°C/W
R_{thch}	total		0,15		°C/W
R_{thja}	isolated[1]		15		°C/W
	chassis[2]		4,7		°C/W
	R4A/120		3,6		°C/W
	P1A/120		2,75		°C/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~
RC	P_R = 1 W		50		Ω
			0,1		µF
Fu			20		A
M_1	to heatsink	SI units	2 ± 15 %		Nm
		US units	18 ± 15 %		lb. in.
w			24	26	g
Case			G 10	G 11	



SKB SKD

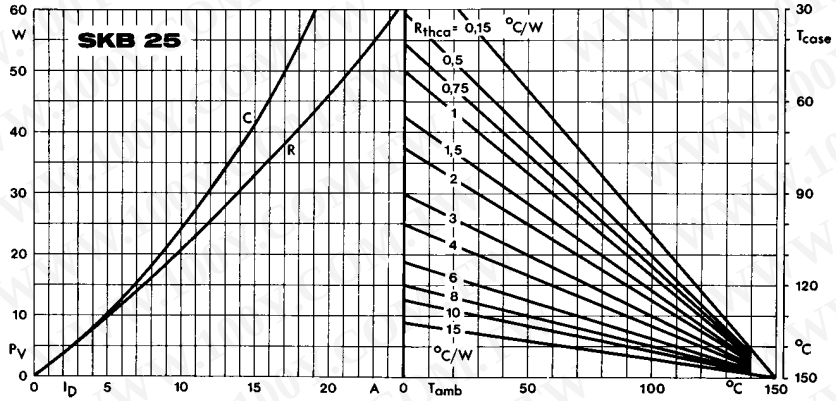
Features

- Square plastic case with isolated metal base plate and fast-on connectors
- Blocking voltage to 1600 V
- High surge currents
- **SKB** = single phase bridge rectifier
  SKD = three phase bridge rectifier
- Easy chassis mounting
- UL recognized, file no. E 63 532

Typical Applications

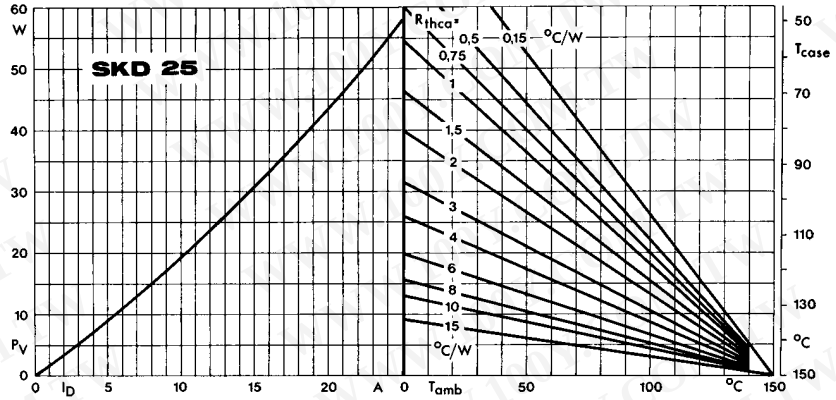
- Single and three phase rectifiers for power supplies
- Input rectifiers for variable frequency drives
- Rectifiers for DC motor field supplies
- Battery charger rectifiers

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



	R_{thca}
P1/120	0,75 °C/W
P5/100	1,55 °C/W
M	2,7 °C/W
I	13 °C/W

Fig. 3 a Power dissipation vs. output current and case temperature



	R_{thca}
P1/120	0,75 °C/W
P5/100	1,55 °C/W
M	2,7 °C/W
I	13 °C/W

Fig. 3 b Power dissipation vs. output current and case temperature

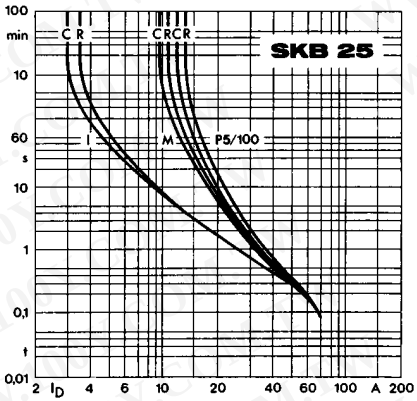


Fig. 6 a Rated overload current vs. time

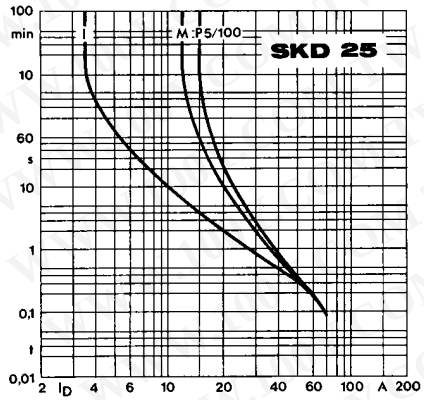


Fig. 6 b Rated overload current vs. time

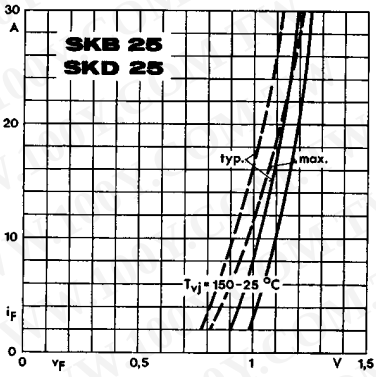
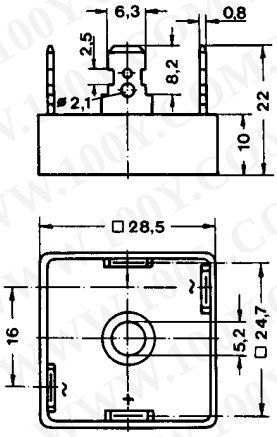


Fig. 9 Forward characteristics of a single diode

SKB 25
Case G 10



SKD 25
Case G 11