

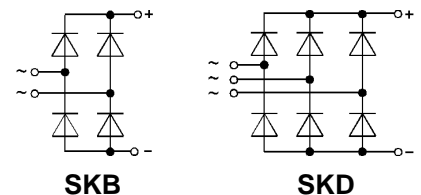
## Power Bridge Rectifiers

### SKB 50 SKD 50



V <sub>RSM</sub> V <sub>RRM</sub>  V	I <sub>D</sub> (T <sub>case</sub> = . . .)			
	50 A (64 °C)		50 A (92 °C)	
	Types	R <sub>min</sub> Ω	Types	R <sub>min</sub> Ω
200	<b>SKB 50/02 A3</b>	0,1	<b>SKD 50/02 A3</b>	0,1
400	<b>SKB 50/04 A3</b>	0,3	<b>SKD 50/04 A3</b>	0,2
800	<b>SKB 50/08 A3</b>	0,4	<b>SKD 50/08 A3</b>	0,4
1200	<b>SKB 50/12 A3</b>	0,6	<b>SKD 50/12 A3</b>	0,6
1400	<b>SKB 50/14 A3</b>	0,7	<b>SKD 50/14 A3</b>	0,7
1600	<b>SKB 50/16 A3</b>	0,8	<b>SKD 50/16 A3</b>	0,8

Symbol	Conditions	SKB 50	SKD 50	Units	
I <sub>D</sub>	T <sub>amb</sub> = 45 °C; isolated <sup>1)</sup>	10	10	A	
	chassis <sup>2)</sup>	20	22	A	
	P1A/120	34	40	A	
I <sub>DCL</sub>	T <sub>amb</sub> = 35 °C; P1A/120 F	47	60	A	
	T <sub>amb</sub> = 45 °C; isolated <sup>1)</sup>	8	10	A	
	chassis <sup>2)</sup>	16	22	A	
	P1A/120	29	40	A	
I <sub>FSM</sub>	T <sub>vj</sub> = 25 °C, 10 ms	750		A	
	T <sub>vj</sub> = 150 °C, 10 ms	600		A	
i <sup>2</sup> t	T <sub>vj</sub> = 25 °C, 8,3...10 ms	2800		A <sup>2</sup> s	
	T <sub>vj</sub> = 150 °C, 8,3...10 ms	1800		A <sup>2</sup> s	
V <sub>F</sub>	T <sub>vj</sub> = 25 °C; I <sub>F</sub> = 150 A	1,6		V	
V <sub>(TO)</sub>	T <sub>vj</sub> = 150 °C	0,85		V	
r <sub>T</sub>	T <sub>vj</sub> = 150 °C	8		mΩ	
I <sub>RD</sub>	T <sub>vj</sub> = 25 °C; V <sub>RD</sub> = V <sub>RRM</sub>	1		mA	
	T <sub>vj</sub> = 150 °C; V <sub>RD</sub> = V <sub>RRM</sub>	10		mA	
t <sub>rr</sub>	T <sub>vj</sub> = 25 °C	typ. 10		μs	
f <sub>G</sub>		2000		Hz	
R <sub>thjc</sub>	total	0,65	0,45	°C/W	
R <sub>thch</sub>	total	0,06	0,06	°C/W	
R <sub>thja</sub>	T <sub>amb</sub> = 35 °C; P1A/120 F	0,9	0,7	°C/W	
	isolated <sup>1)</sup>	5,7	5,5	°C/W	
	chassis <sup>2)</sup>	2,5	2,3	°C/W	
	P1A/120	1,3	1,1	°C/W	
T <sub>vj</sub>		- 40...+ 150		°C	
T <sub>stg</sub>		- 55...+ 150		°C	
V <sub>isol</sub> RC	a.c. 50...60 Hz; r.m.s., 1 s / 1 min	3000 / 2500		V~	
	P <sub>R</sub> = 1 W	50		Ω	
F <sub>u</sub>		0,1		μF	
M <sub>1</sub>	to heatsink	SI units	5 ± 15 %		Nm
		US units	44 ± 15 %		lb. in.
M <sub>2</sub>	to terminals	SI units	3 ± 15 %		Nm
		US units	26 ± 15 %		lb. in.
w		250		g	
Case		G 14	G 15		



### Features

- Isolated metal case with screw terminals
- Blocking voltage to 1600 V
- High surge current
- **SKB** = single phase bridge rectifier
- **SKD** = three phase bridge rectifier
- Easy chassis mounting

### 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

<sup>1)</sup> Freely suspended or mounted on an insulator

<sup>2)</sup> Mounted on a painted metal sheet of min. 250 x 250 x 1 mm

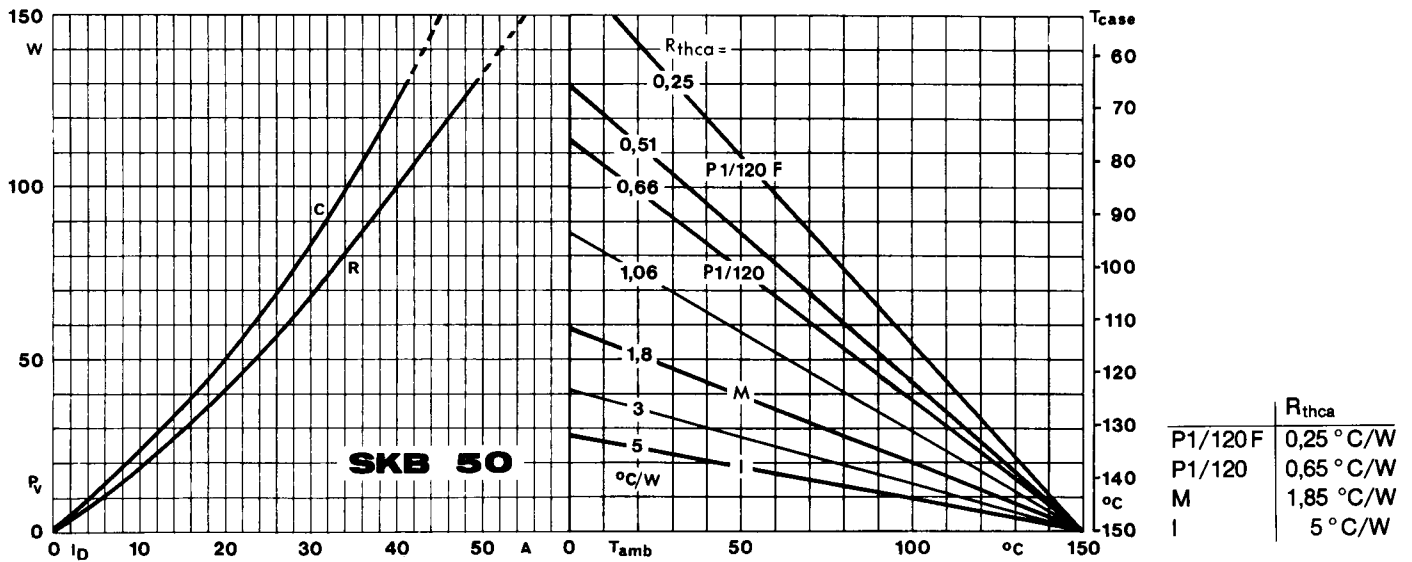


Fig. 3 a Power dissipation vs. output current and case temperature

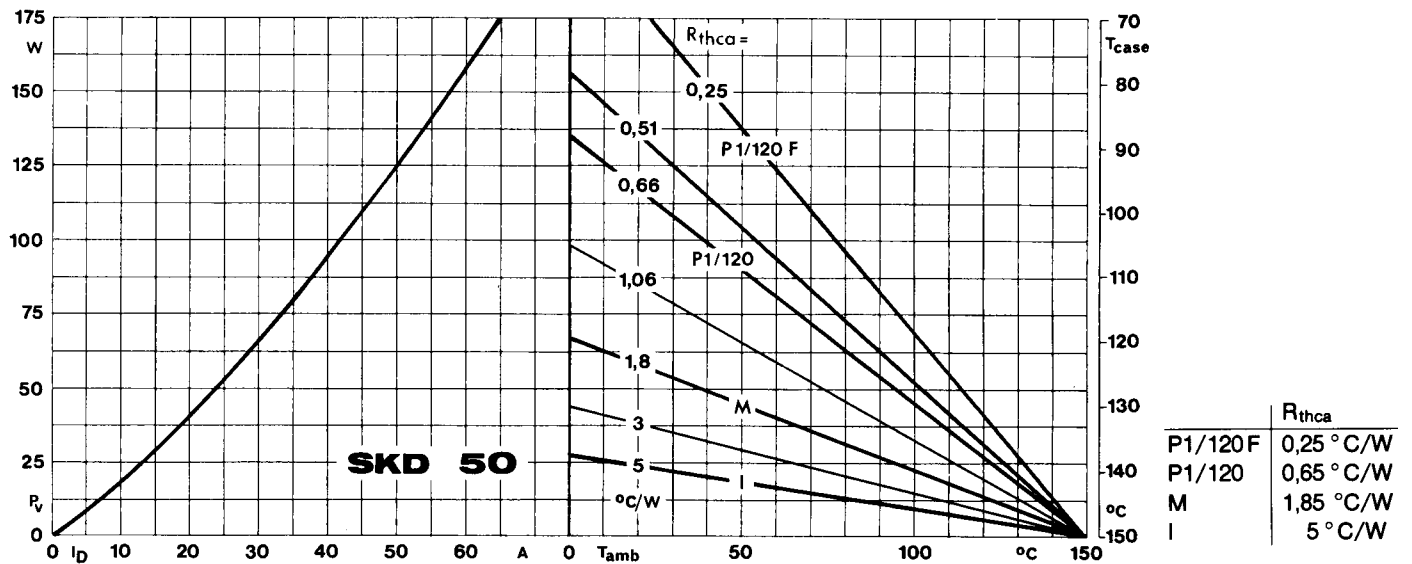


Fig. 3 b Power dissipation vs. output current and case temperature

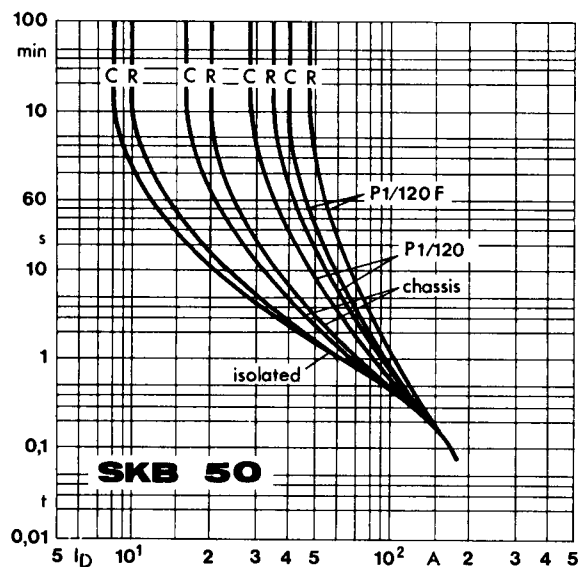


Fig. 6 a Rated overload current vs. time

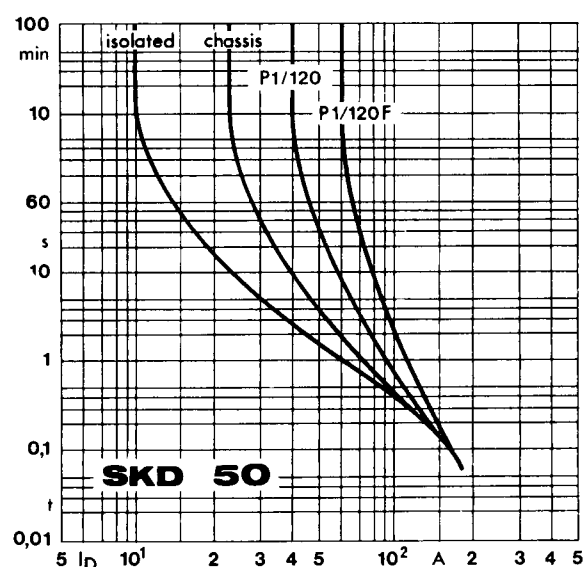


Fig. 6 b Rated overload current vs. time

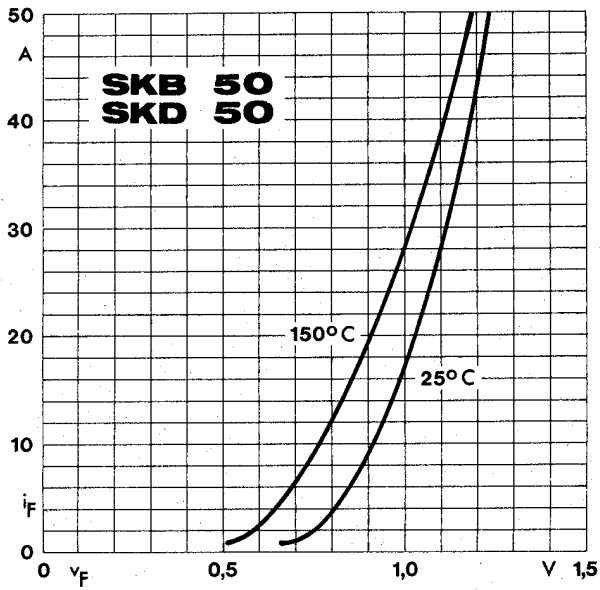


Fig. 9 Forward characteristics of a single diode

