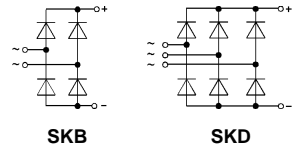


## Power Bridge Rectifiers

### SKB 30 SKD 30



#### Features

- Isolated metal case with screw terminals
- 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

V <sub>RSM</sub> V <sub>RRM</sub>  V	I <sub>D</sub> (T <sub>case</sub> = . . .)			
	30 A (94 °C)		30 A (98 °C)	
	Types	R <sub>min</sub> Ω	Types	R <sub>min</sub> Ω
200	<b>SKB 30/02 A1</b>	0,15	<b>SKD 30/02 A1</b>	0,15
400	<b>SKB 30/04 A1</b>	0,3	<b>SKD 30/04 A1</b>	0,3
800	<b>SKB 30/08 A1</b>	0,5	<b>SKD 30/08 A1</b>	0,5
1200	<b>SKB 30/12 A1</b>	0,75	<b>SKD 30/12 A1</b>	0,75
1400	<b>SKB 30/14 A1</b>	0,9	<b>SKD 30/14 A1</b>	0,9
1600	<b>SKB 30/16 A1</b>	1	<b>SKD 30/16 A1</b>	1

Symbol	Conditions	SKB 30	SKD 30	Units
I <sub>D</sub>	T <sub>amb</sub> = 45 °C; isolated <sup>1)</sup>	6,5	6,5	A
	chassis <sup>2)</sup>	15	15	A
	P5A/100	21	21	A
	R4A/120	23	23	A
	P1A/120	29	31	A
I <sub>DCL</sub>	T <sub>amb</sub> = 35 °C; P1A/120 F	38		A
	T <sub>amb</sub> = 45 °C; isolated <sup>1)</sup>	6	6,5	A
	chassis <sup>2)</sup>	13	15	A
	P5A/100	17	21	A
	P1A/120	24	31	A
	T <sub>amb</sub> = 35 °C; P1A/120 F	32		A
I <sub>FSM</sub>	T <sub>vj</sub> = 25 °C, 10 ms		370	A
i <sup>2</sup> t	T <sub>vj</sub> = 150 °C, 10 ms		320	A
	T <sub>vj</sub> = 25 °C, 8,3...10 ms		680	A <sup>2</sup> s
	T <sub>vj</sub> = 150 °C, 8,3...10 ms		500	A <sup>2</sup> s
V <sub>F</sub>	T <sub>vj</sub> = 25 °C; I <sub>F</sub> = 150 A		2,2	V
V <sub>(TO)</sub>	T <sub>vj</sub> = 150 °C		0,85	V
r <sub>T</sub>	T <sub>vj</sub> = 150 °C		12	mΩ
I <sub>RD</sub>	T <sub>vj</sub> = 25 °C; V <sub>RD</sub> = V <sub>RRM</sub>		0,3	mA
	T <sub>vj</sub> = 150 °C; V <sub>RD</sub> = V <sub>RRM</sub>		5	mA
t <sub>rr</sub>	T <sub>vj</sub> = 25 °C		typ. 25	μs
f <sub>G</sub>			2000	Hz
R <sub>thjc</sub>	total		0,7	°C/W
R <sub>thch</sub>	total		0,1	°C/W
R <sub>thja</sub>	isolated <sup>1)</sup>		8,5	°C/W
	chassis <sup>2)</sup>		3,3	°C/W
	P5A/100		2,2	°C/W
	P1A/120		1,4	°C/W
	T <sub>vj</sub>			- 40...+ 150
T <sub>stg</sub>			- 55...+ 150	°C
V <sub>isol</sub>	a.c. 50...60 Hz; r.m.s.; 1 s / 1 min		3000 / 2500	V-
RC	P <sub>R</sub> = 1 W		50	Ω
			0,1	μF
			25	A
F <sub>u</sub>				
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	1,5 ± 15 %	Nm
		US units	13 ± 15 %	lb.in.
w			125	g
Case		G 12	G 13	

<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

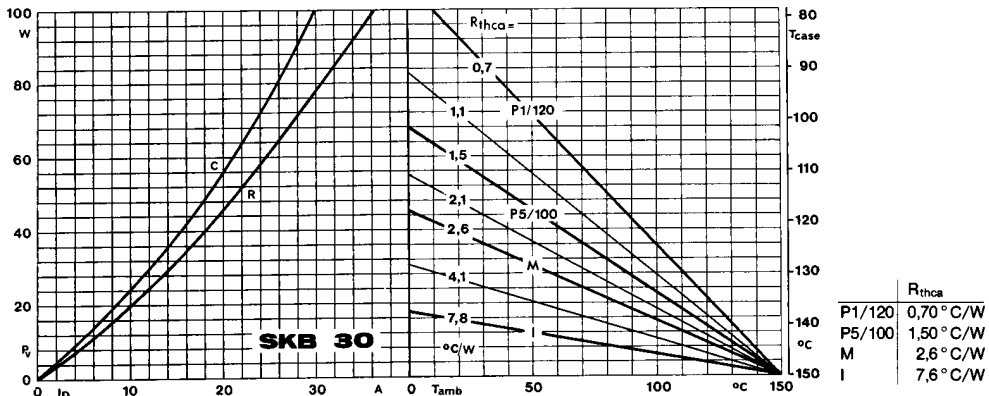


Fig. 3 a Power dissipation vs. output current and case temperature

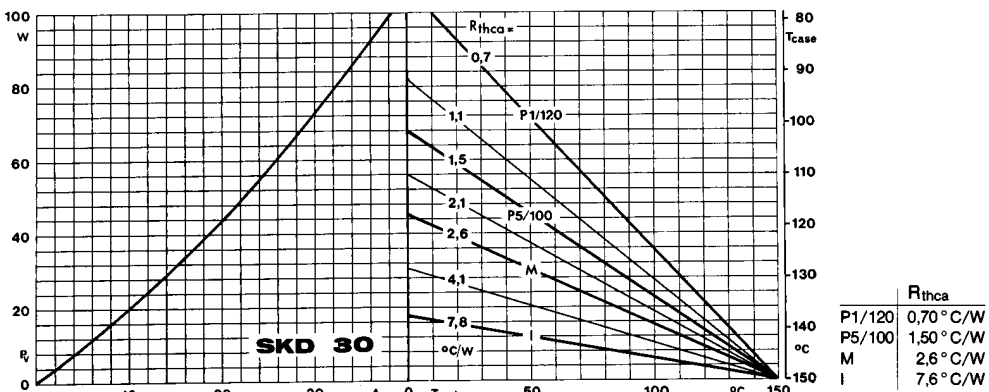


Fig. 3 b Power dissipation vs. output current and case temperature

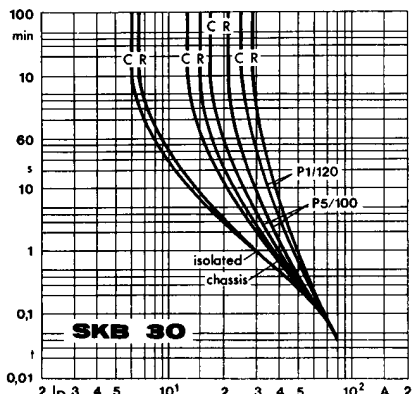


Fig. 6 a Rated overload current vs. time

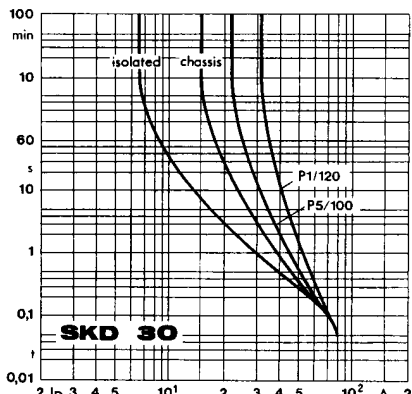


Fig. 6 b Rated overload current vs. time

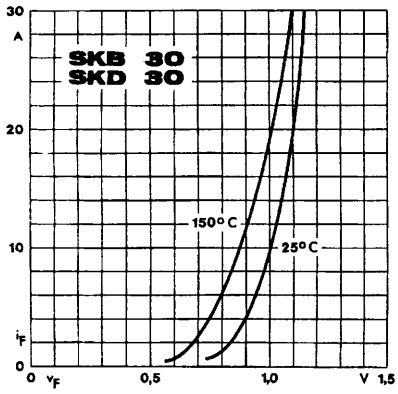
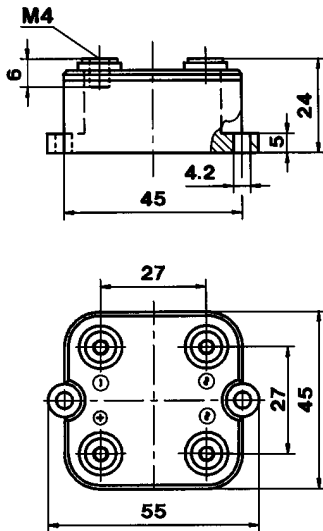


Fig. 9 Forward characteristics of a single diode

**SKB 30**

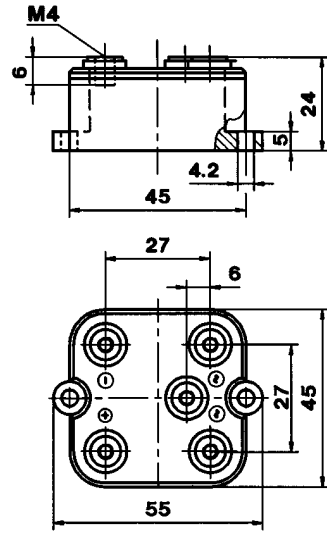
Case G 12



Dimensions in mm

**SKD 30**

Case G 13



Dimensions in mm