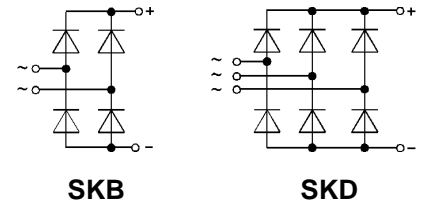


**Power Bridge Rectifiers**

**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> chassis <sup>2)</sup> P5A/100 R4A/120 P1A/120	6,5 15 21 23 29	6,5 15 21 23 31	A A A A A
I <sub>DCL</sub>	T <sub>amb</sub> = 35 °C; P1A/120 F T <sub>amb</sub> = 45 °C; isolated <sup>1)</sup> chassis <sup>2)</sup> P5A/100 P1A/120 T <sub>amb</sub> = 35 °C; P1A/120 F	38 6 13 17 24 32	6,5 15 21 31	A A A A A A
I <sub>FSM</sub>	T <sub>vj</sub> = 25 °C, 10 ms T <sub>vj</sub> = 150 °C, 10 ms	370 320		A A
i <sup>2</sup> t	T <sub>vj</sub> = 25 °C, 8,3...10 ms T <sub>vj</sub> = 150 °C, 8,3...10 ms	680 500		A <sup>2</sup> s 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> T <sub>vj</sub> = 150 °C; V <sub>RD</sub> = V <sub>RRM</sub>	0,3 5		mA 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> chassis <sup>2)</sup> P5A/100 P1A/120	8,5 3,3 2,2 1,4		°C/W °C/W °C/W °C/W
T <sub>vj</sub>		- 40...+ 150		°C
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 0,1		Ω μF
F <sub>u</sub>		25		A
M <sub>1</sub>	to heatsink	SI units US units	5 ± 15 % 44 ± 15 %	Nm lb. in.
M <sub>2</sub>	to terminals	SI units US units	1,5 ± 15 % 13 ± 15 %	Nm 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

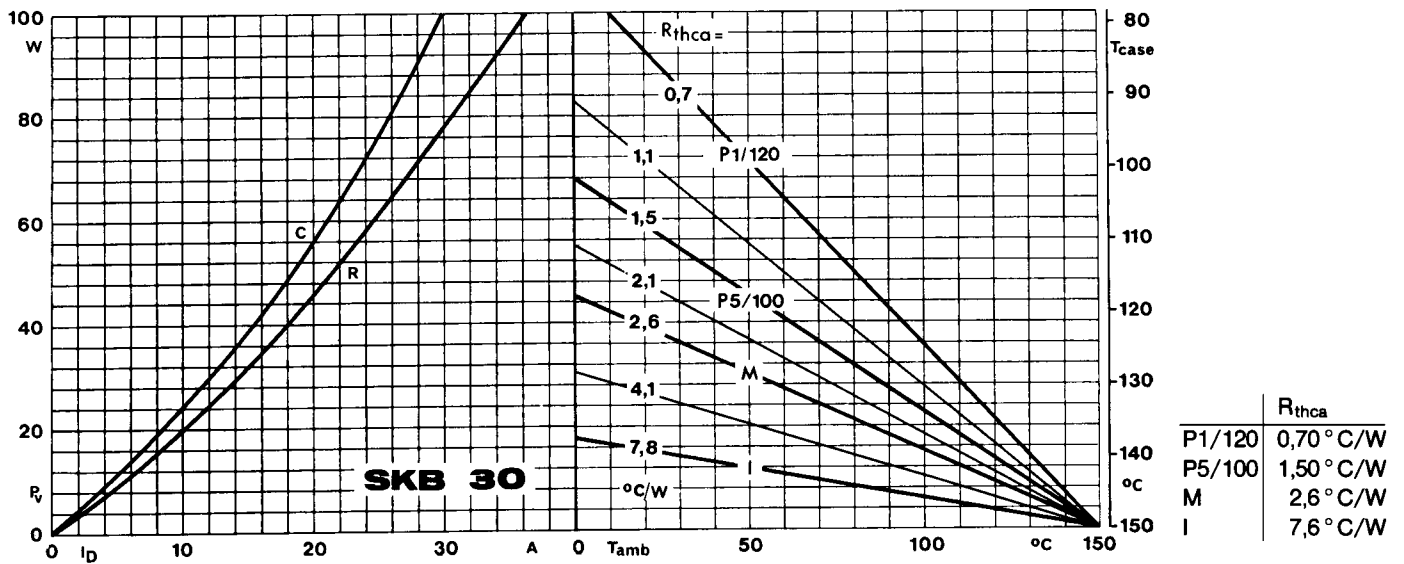


Fig. 3 a Power dissipation vs. output current and case temperature

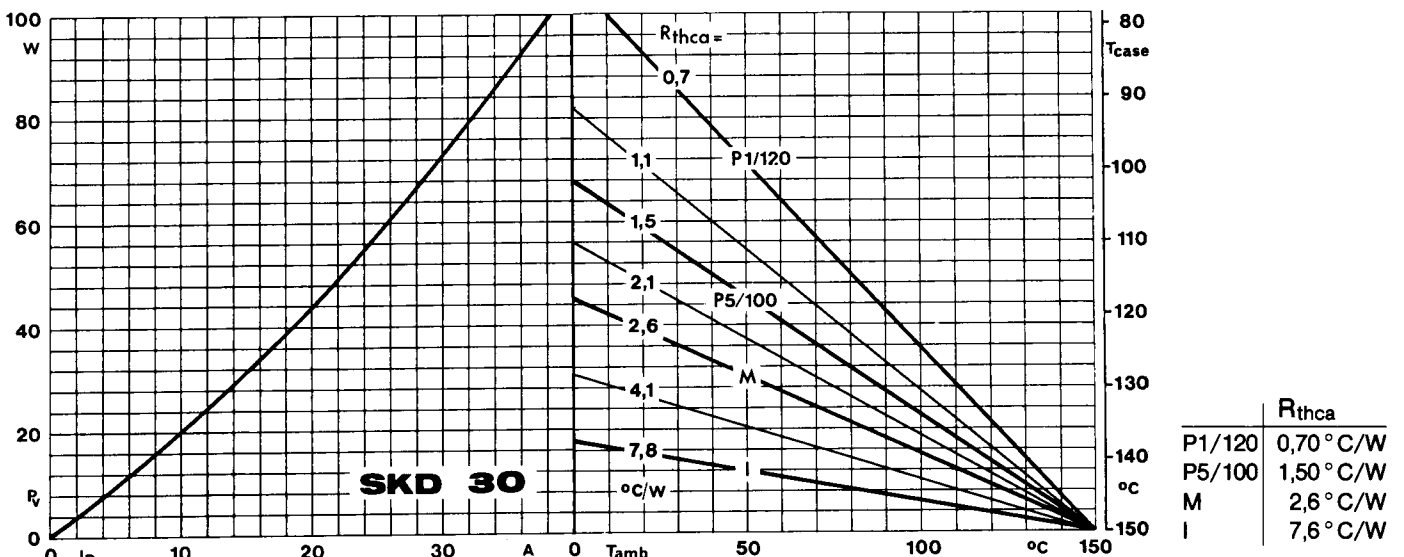


Fig. 3 b Power dissipation vs. output current and case temperature

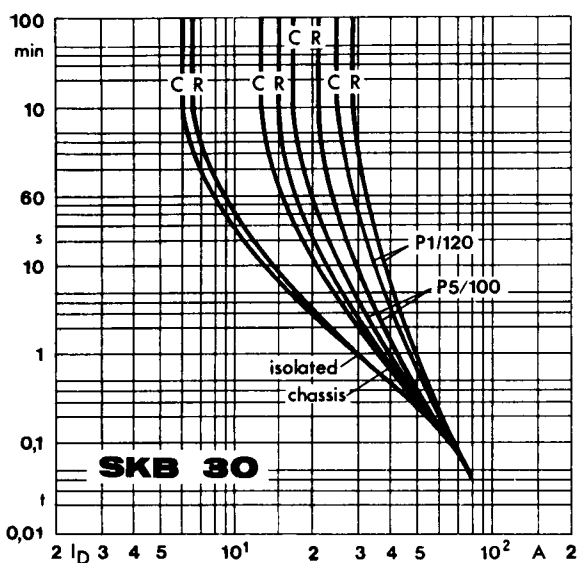


Fig. 6 a Rated overload current vs. time

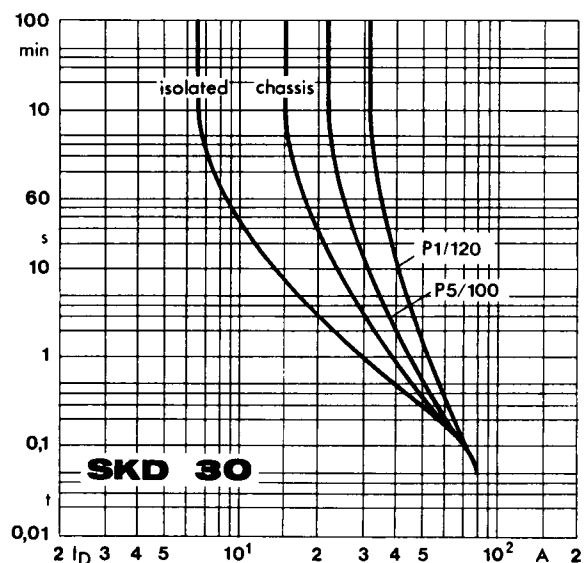


Fig. 6 b Rated overload current vs. time

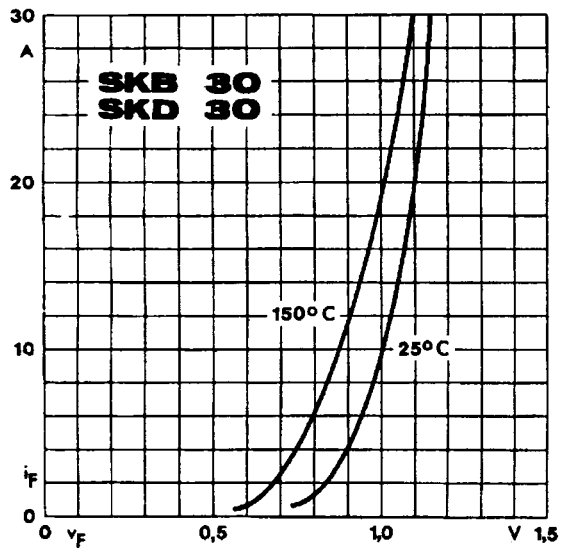
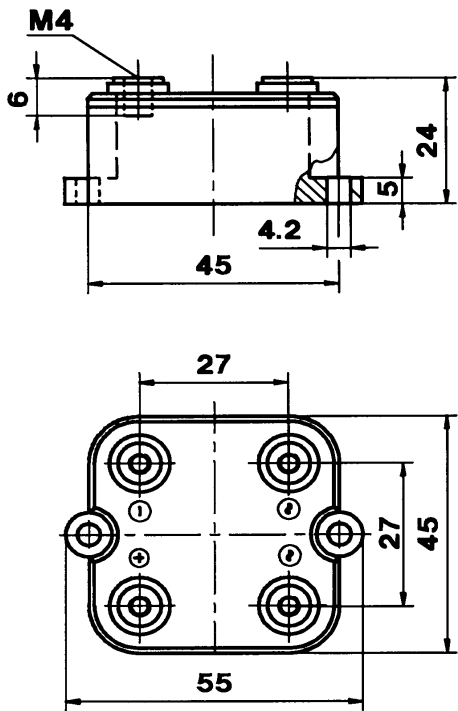


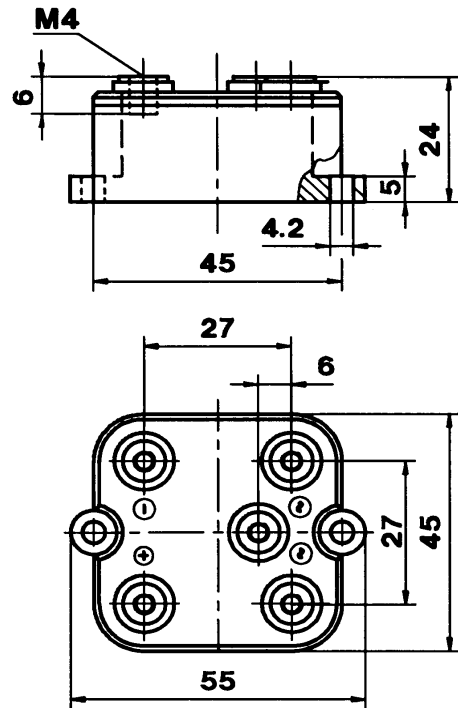
Fig. 9 Forward characteristics of a single diode

**SKB 30**  
Case G 12



Dimensions in mm

**SKD 30**  
Case G 13



Dimensions in mm