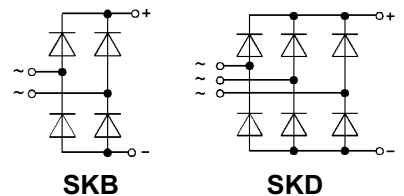


V <sub>RSM</sub> V <sub>RRM</sub> V	I <sub>D</sub> (T <sub>case</sub> = . . .)			
	50 A (99 °C)	70 A (101 °C)	60 A (110 °C)	80 A (110 °C)
400	<b>SKB 52/04</b>	<b>SKB 72/04</b>	<b>SKD 62/04</b>	<b>SKD 82/04</b>
800	<b>SKB 52/08</b>	<b>SKB 72/08</b>	<b>SKD 62/08</b>	<b>SKD 82/08</b>
1200	<b>SKB 52/12</b>	<b>SKB 72/12</b>	<b>SKD 62/12</b>	<b>SKD 82/12</b>
1400	<b>SKB 52/14</b>	<b>SKB 72/14</b>	<b>SKD 62/14</b>	<b>SKD 82/14</b>
1600	<b>SKB 52/16</b>	<b>SKB 72/16</b>	<b>SKD 62/16</b>	<b>SKD 82/16</b>
1800	<b>SKB 52/18</b>	<b>SKB 72/18</b>	<b>SKD 62/18*</b>	<b>SKD 82/18*</b>

## SEMIPONT® 3 Power Bridge Rectifiers

**SKB 52      SKD 62**  
**SKB 72      SKD 82**



Symbol	Conditions	SKB 52	SKD 62	SKB 72	SKD 82	Units
I <sub>D</sub>	T <sub>case</sub> = 110 °C; resistive/ inductive load	42	60	60	80	A
	T <sub>amb</sub> = 45 °C; isolated <sup>1)</sup>	9,5	10,5	10	12	A
	chassis <sup>2)</sup>	21,5	24	23,5	26	A
	P1A/120	40	46	48	54	A
	P1A/200	45	53	54	63	A
I <sub>FSM</sub>	T <sub>vj</sub> = 25 °C; 10 ms	500		750		A
	T <sub>vj</sub> = 150 °C; 10 ms	425		640		A
i <sup>2</sup> t	T <sub>vj</sub> = 25 °C; 8,3 ... 10 ms	1250		2800		A <sup>2</sup> s
	T <sub>vj</sub> = 150 °C; 8,3 ... 10 ms	900		2000		A <sup>2</sup> s
V <sub>F</sub>	T <sub>vj</sub> = 25 °C; I <sub>F</sub> = 150 A	1,8		1,6		V
V <sub>(TO)</sub>	T <sub>vj</sub> = 150 °C	0,85		0,85		V
r <sub>T</sub>	T <sub>vj</sub> = 150 °C	8		5		mΩ
I <sub>RD</sub>	T <sub>vj</sub> = 25 °C; V <sub>RD</sub> = V <sub>RRM</sub>	0,5		0,5		mA
	T <sub>vj</sub> = 150 °C; V <sub>RD</sub> = V <sub>RRM</sub>	5		6		mA
R <sub>thjc</sub>	per diode	1,5		1,1		°C/W
	total, SKB	0,375		0,275		°C/W
	total, SKD	0,25		0,183		°C/W
R <sub>thch</sub>	total	0,07				°C/W
T <sub>vj</sub>		- 40 ... + 150				°C
T <sub>stg</sub>		- 40 ... + 125				°C
V <sub>isol</sub>	a. c. 50... 60 Hz; r.m.s; 1s/1min	3600 / 3000				V~
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	5 ± 15 %			Nm
		US units	44 ± 15 %			lb. in.
w		140				g
Case		G 35	G 36	G 35	G 36	

\* Available in limited quantities

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

<sup>2)</sup> Mounted on a painted metal sheet of min. 250 x 250 x 1 mm; R<sub>thha</sub> = 1,8 °C/W

### Features

- Robust plastic case with screw terminals
- Large, isolated base plate
- Blocking voltage up to 1800 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

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.

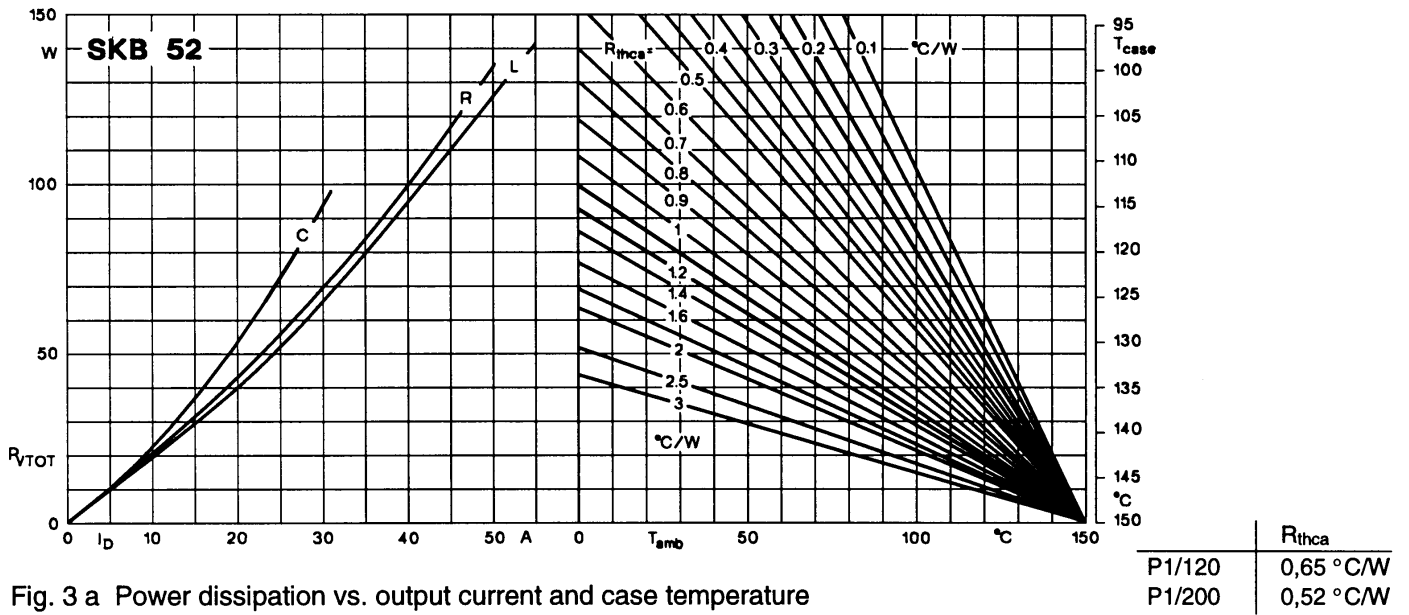


Fig. 3 a Power dissipation vs. output current and case temperature

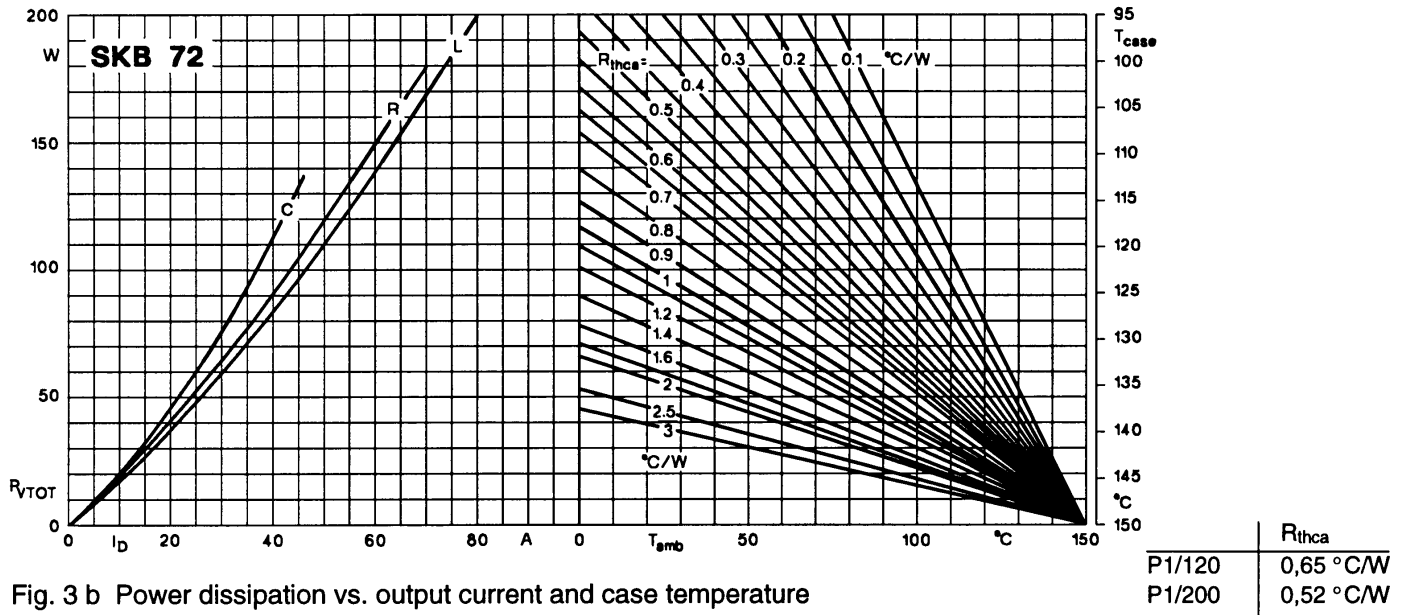


Fig. 3 b Power dissipation vs. output current and case temperature

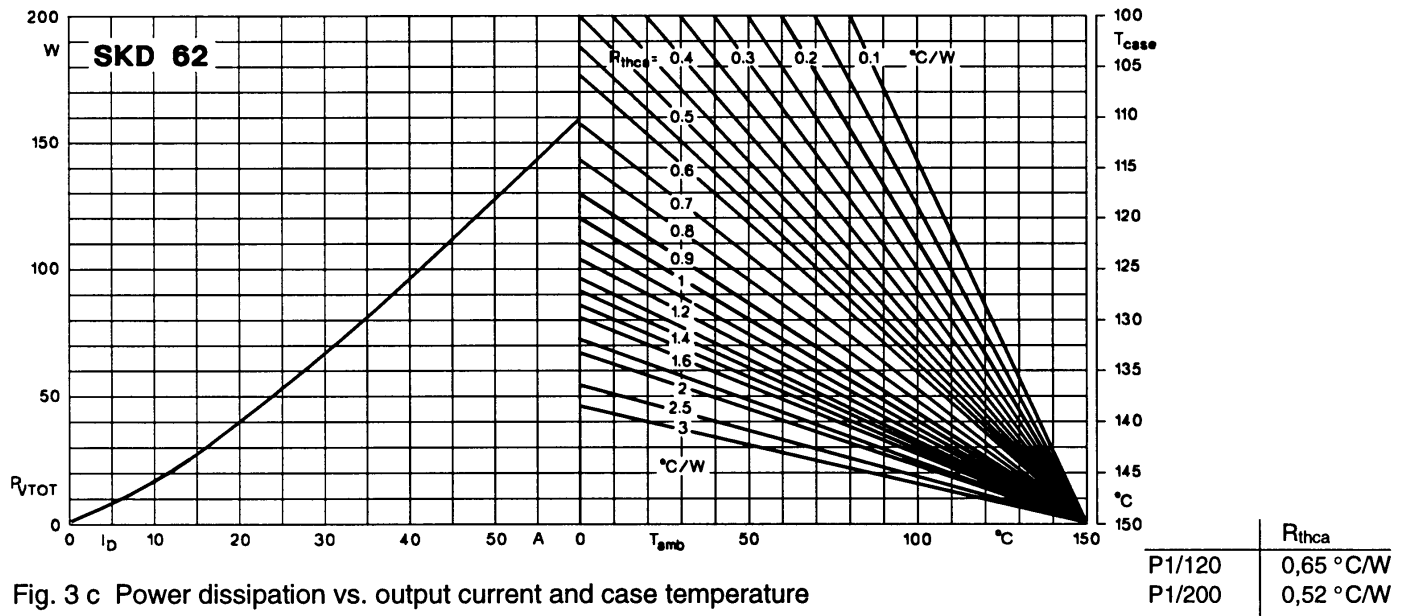


Fig. 3 c Power dissipation vs. output current and case temperature

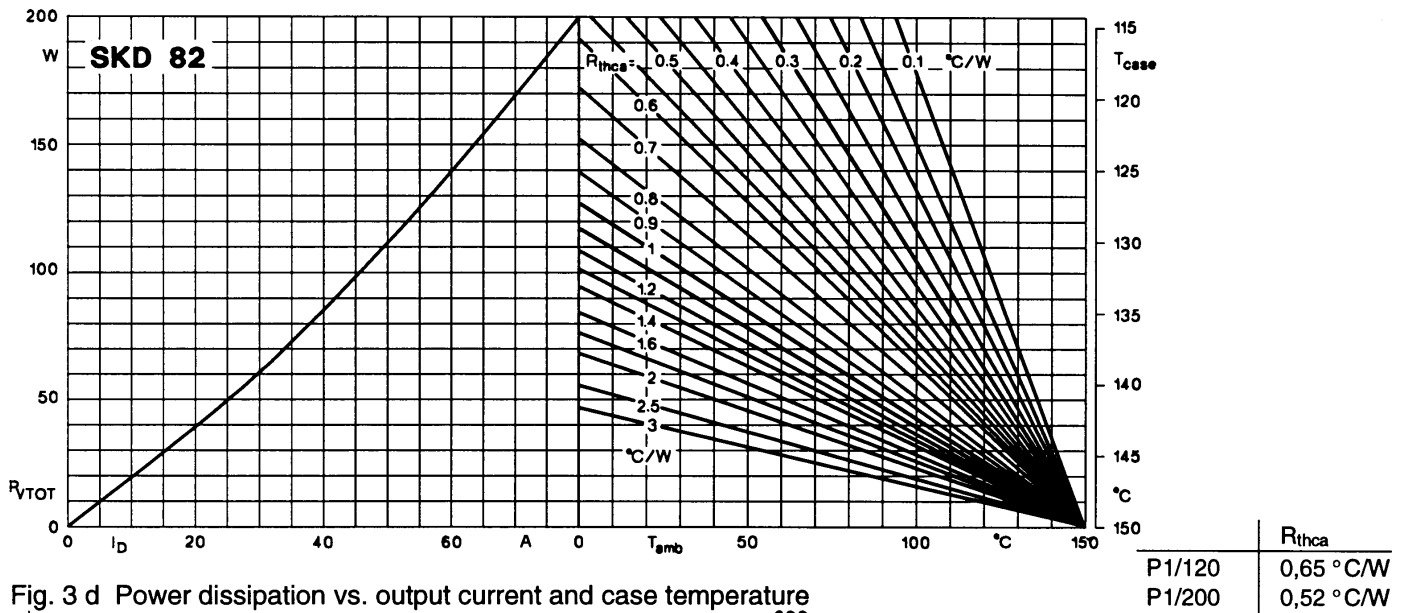


Fig. 3 d Power dissipation vs. output current and case temperature

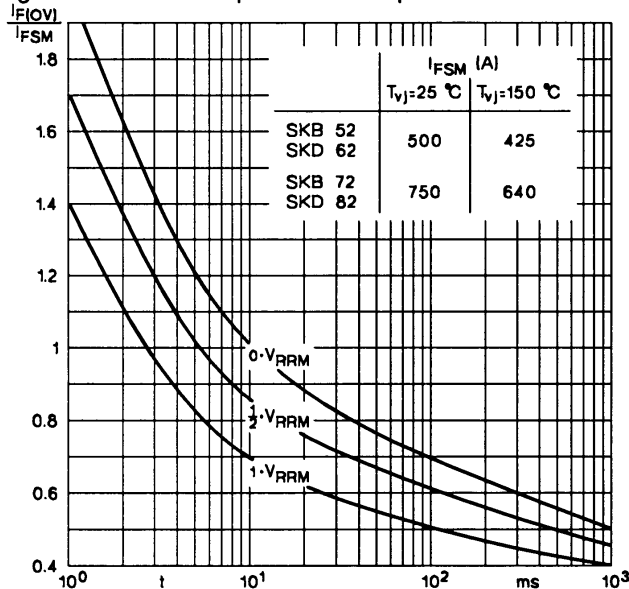


Fig. 5 Surge overload current vs. time

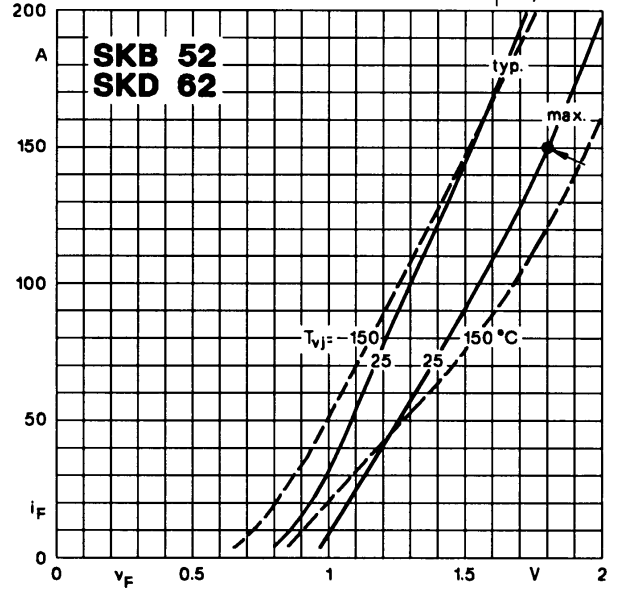


Fig. 9 a Forward characteristics of a single diode

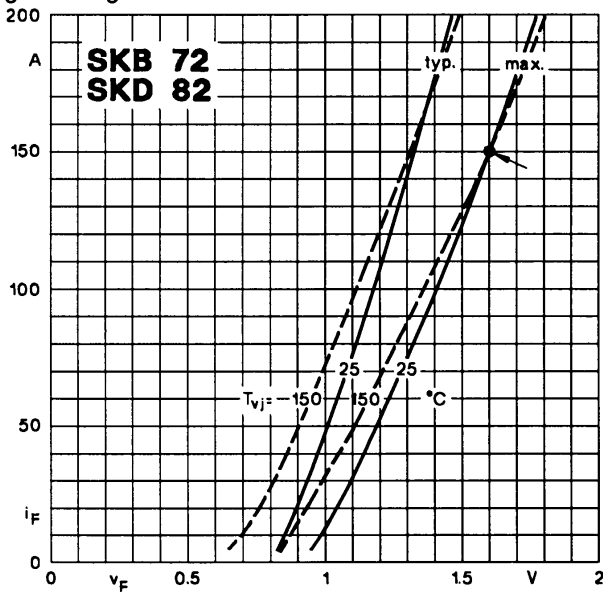


Fig. 9 b Forward characteristics of a single diode

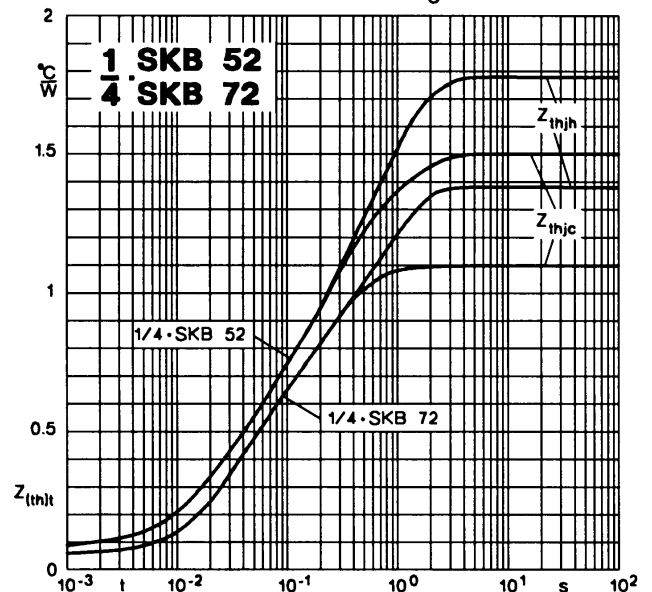


Fig. 12 a Transient thermal impedance vs. time

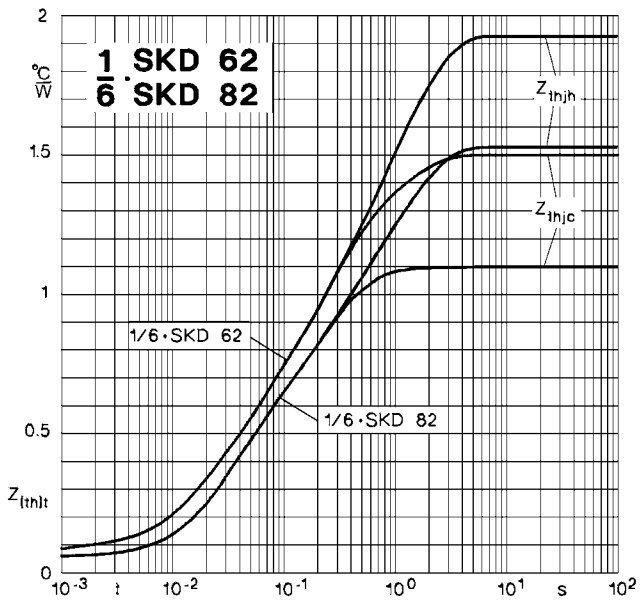


Fig. 12 b Transient thermal impedance vs. time

