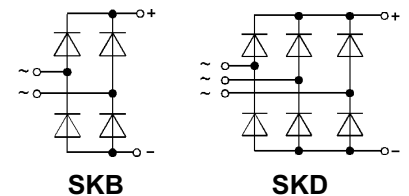


V _{RSM} V _{RRM} V	I _D (T _{case} = . . .)			
	50 A (99 °C)	70 A (101 °C)	60 A (110 °C)	80 A (110 °C)
400	SKB 52/04	SKB 72/04	SKD 62/04	SKD 82/04
800	SKB 52/08	SKB 72/08	SKD 62/08	SKD 82/08
1200	SKB 52/12	SKB 72/12	SKD 62/12	SKD 82/12
1400	SKB 52/14	SKB 72/14	SKD 62/14	SKD 82/14
1600	SKB 52/16	SKB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

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 _D	T _{case} = 110 °C; resistive/ inductive load	42	60	60	80	A
	T _{amb} = 45 °C; isolated ¹⁾	9,5	10,5	10	12	A
	chassis ²⁾	21,5	24	23,5	26	A
	P1A/120	40	46	48	54	A
	P1A/200	45	53	54	63	A
I _{FSM}	T _{vj} = 25 °C; 10 ms	500		750		A
	T _{vj} = 150 °C; 10 ms	425		640		A
i ² t	T _{vj} = 25 °C; 8,3 ... 10 ms	1250		2800		A ² s
	T _{vj} = 150 °C; 8,3 ... 10 ms	900		2000		A ² s
V _F	T _{vj} = 25 °C; I _F = 150 A	1,8		1,6		V
V _(TO)	T _{vj} = 150 °C	0,85		0,85		V
r _T	T _{vj} = 150 °C	8		5		mΩ
I _{RD}	T _{vj} = 25 °C; V _{RD} = V _{RRM}	0,5		0,5		mA
	T _{vj} = 150 °C; V _{RD} = V _{RRM}	5		6		mA
R _{thjc}	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 _{thch}	total	0,07				°C/W
T _{vj}		- 40 ... + 150				°C
T _{stg}		- 40 ... + 125				°C
V _{isol}	a. c. 50... 60 Hz; r.m.s; 1s/1min	3600 / 3000				V~
M ₁	to heatsink	SI units	5 ± 15 %		Nm	
		US units	44 ± 15 %			
M ₂	to terminals	SI units	5 ± 15 %		Nm	
		US units	44 ± 15 %			
w		140				g
Case		G 35	G 36	G 35	G 36	

* Available in limited quantities

¹⁾ Freely suspended or mounted on an isolator

²⁾ Mounted on a painted metal sheet of min. 250 x 250 x 1 mm; R_{thha} = 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.

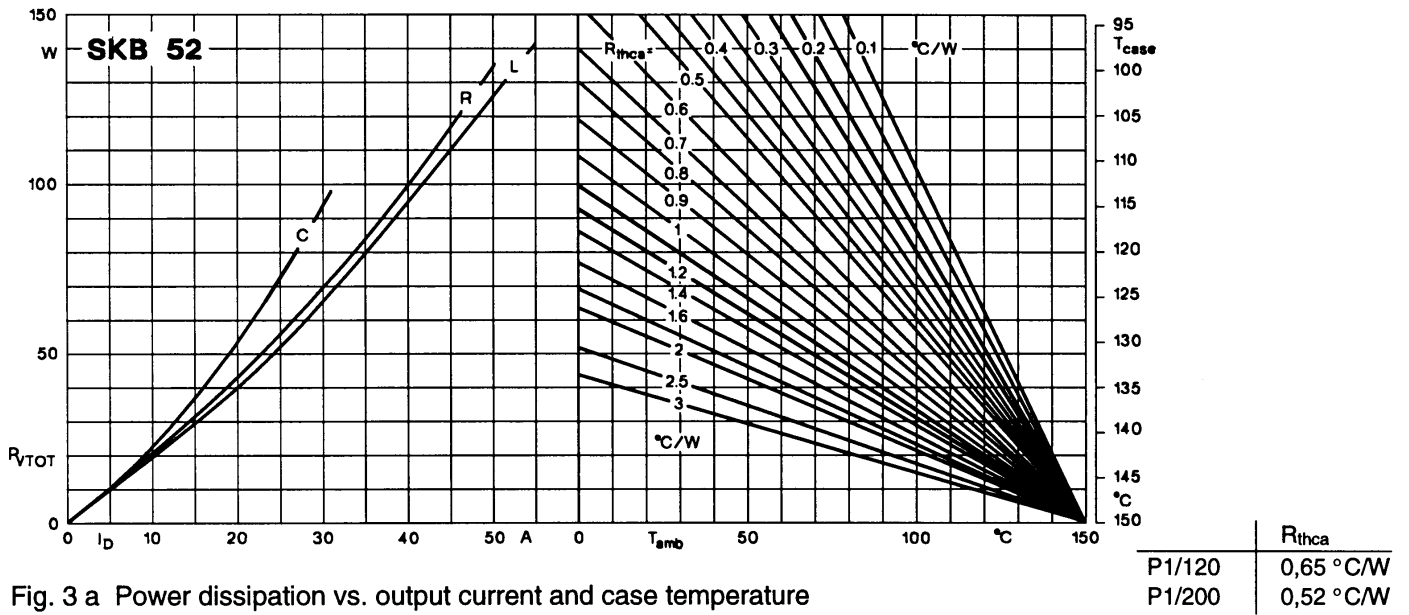


Fig. 3 a Power dissipation vs. output current and case temperature

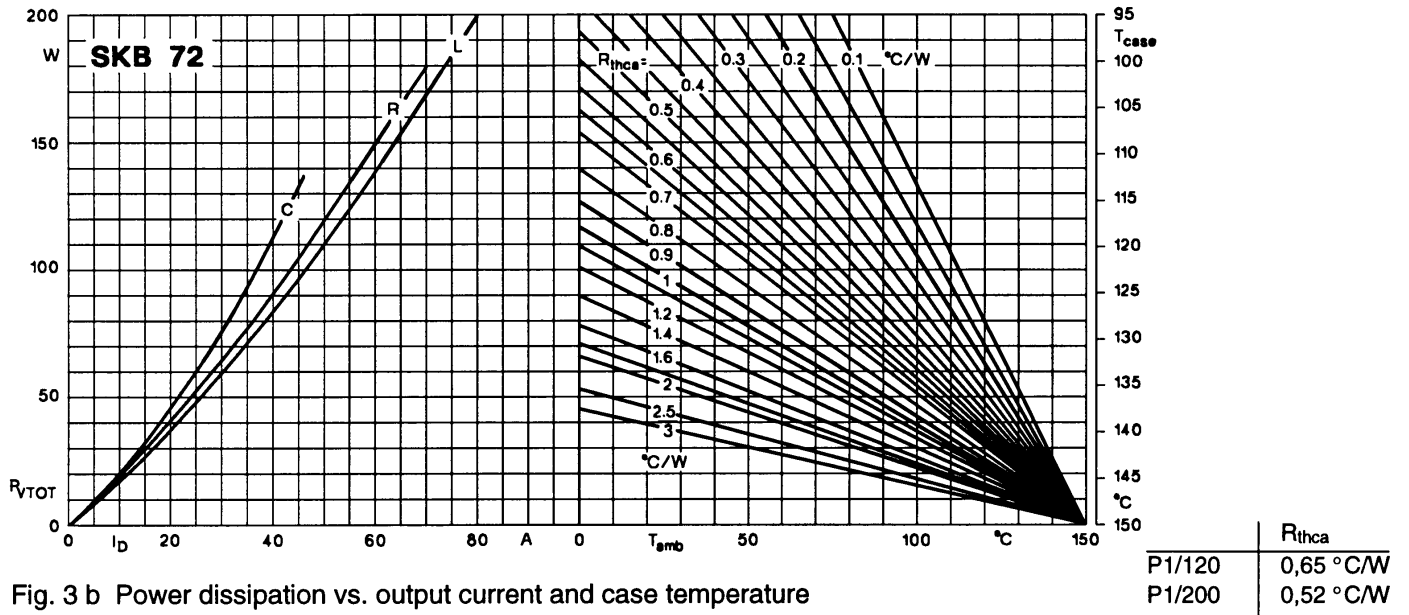


Fig. 3 b Power dissipation vs. output current and case temperature

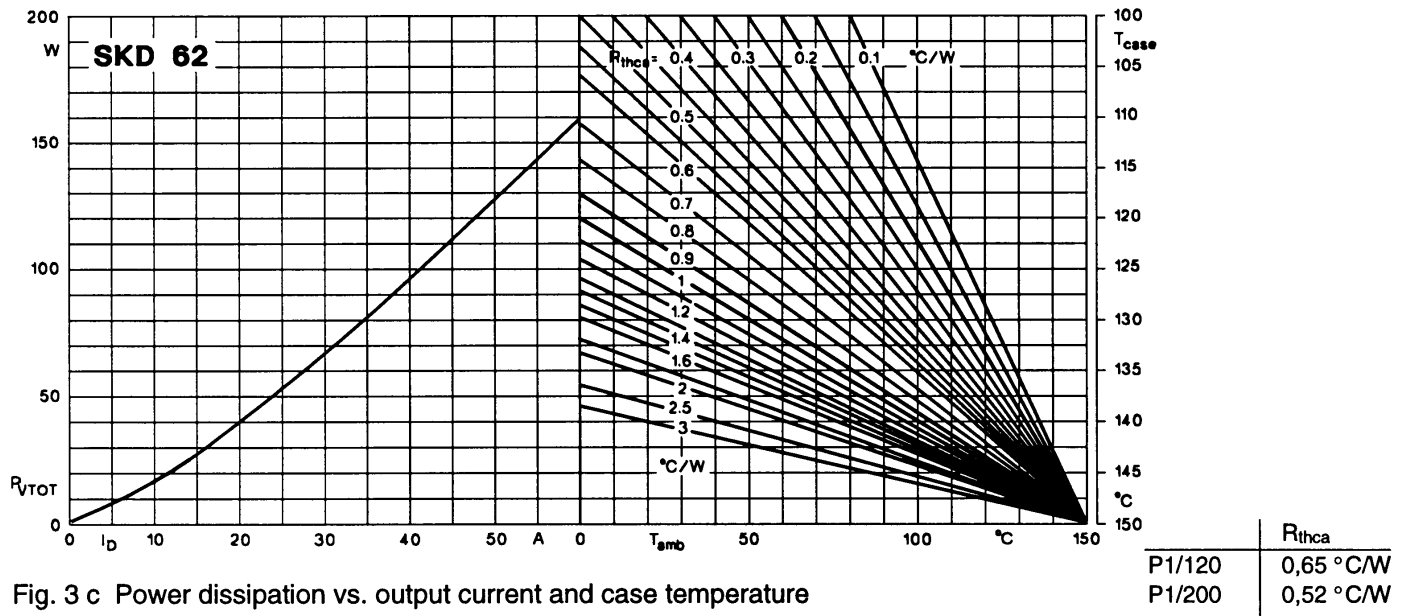


Fig. 3 c Power dissipation vs. output current and case temperature

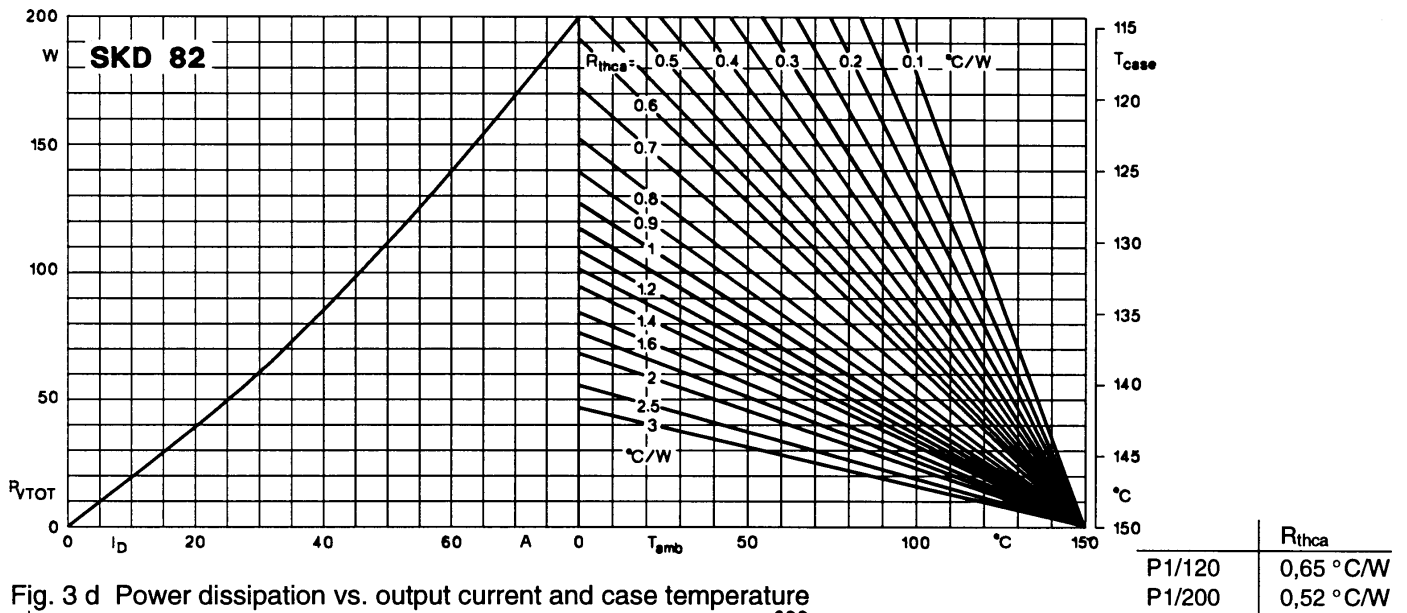


Fig. 3 d Power dissipation vs. output current and case temperature

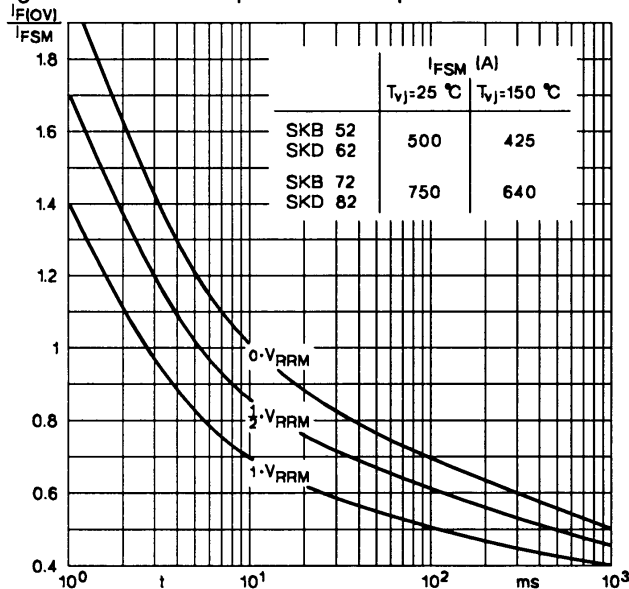


Fig. 5 Surge overload current vs. time

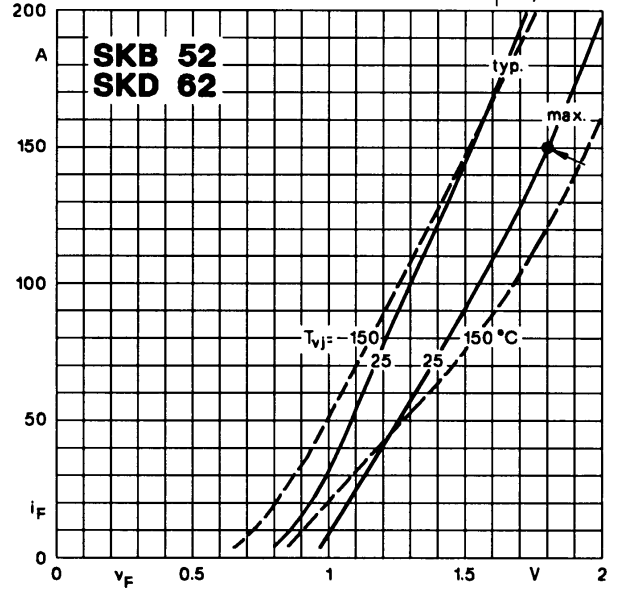


Fig. 9 a Forward characteristics of a single diode

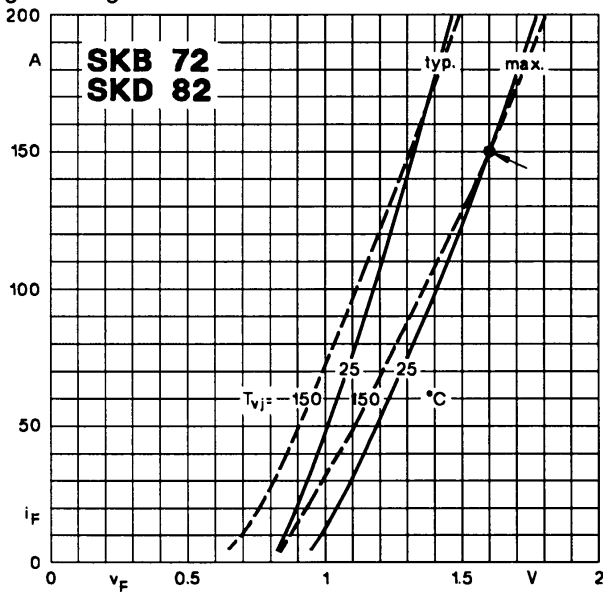


Fig. 9 b Forward characteristics of a single diode

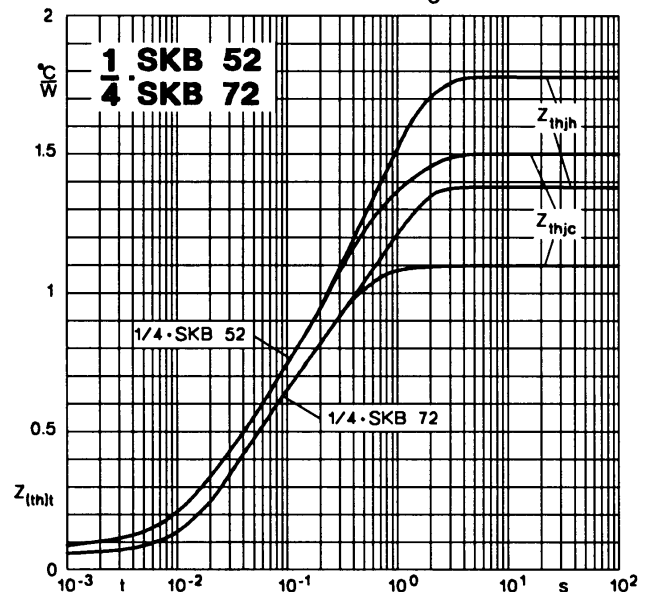


Fig. 12 a Transient thermal impedance vs. time

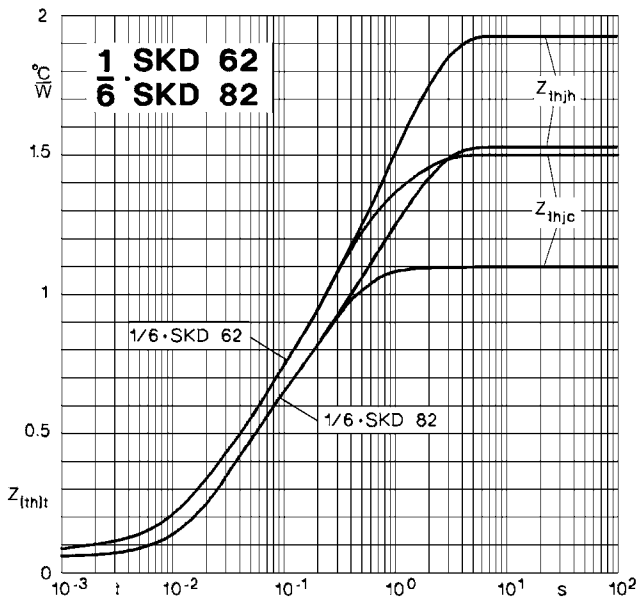


Fig. 12 b Transient thermal impedance vs. time

