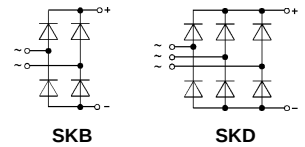


SEMIPONT® 3 Power Bridge Rectifiers

SKB 52 SKD 62
SKB 72 SKD 82



Features

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

VRSM VRRM	ID (T _{case} = . . .)			
	50 A (99 °C)	70 A (101 °C)	60 A (110 °C)	80 A (110 °C)
200 V	SKB 52/02	SKB 72/02	SKD 62/02	SKD 82/02
400 V	SKB 52/04	SKB 72/04	SKD 62/04	SKD 82/04
800 V	SKB 52/08	SKB 72/08	SKD 62/08	SKD 82/08
1200 V	SKB 52/12	SKB 72/12	SKD 62/12	SKD 82/12
1400 V	SKB 52/14	SKB 72/14	SKD 62/14	SKD 82/14
1600 V	SKB 52/16	SKB 72/16	SKD 62/16	SKD 82/16
1800 V	SKB 52/18	SKB 72/18	SKD 62/18*	SKD 82/18*

Symbol	Conditions	SKB 52	SKD 62	SKB 72	SKD 82
ID	T _{case} = 110 °C; resistive/ inductive load	42 A	60 A	60 A	80 A
	T _{amb} = 45 °C, isolated ¹⁾ chassis ²⁾	9,5 A	10,5 A	10 A	12 A
	P 1A/120	21,5 A	24 A	23,5 A	26 A
	P 1A/200	40 A	46 A	48 A	54 A
		45 A	53 A	54 A	63 A
IFSM	T _{vj} = 25 °C, 10 ms	500 A		750 A	
i ² t	T _{vj} = 150 °C, 10 ms	425 A		640 A	
	T _{vj} = 25 °C, 8,3...10 ms	1250 A ² s		2800 A ² s	
	T _{vj} = 150 °C, 8,3...10 ms	900 A ² s		2000 A ² s	
V _F	T _{vj} = 25 °C; I _F = 150 A	1, 8 V		1,6 V	
V(TO)	T _{vj} = 150 °C	0,85 V		0,85 V	
r _T	T _{vj} = 150 °C	8 mΩ		5 mΩ	
I _{RD}	T _{vj} = 25/150 °C; V _{RD} = V _{RRM}	0,5 / 5 mA		0,5 / 6 mA	
R _{thjc}	per diode	1,5 °C/W		1,1 °C/W	
R _{thch}	total, SKB	0,375 °C/W		0,275 °C/W	
	total, SKD	0,25 °C/W		0,183 °C/W	
	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 V~ / 3000 V~			
M ₁	case to heatsink busbars to terminals	SI units/ US units		5 Nm/44 lb. in. ± 15 %	
M ₂				5 Nm/44 lb. in. ± 15 %	
w				165 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 minimum 250 x 250 x 1 mm: R_{thha} = 1,8 °C/W

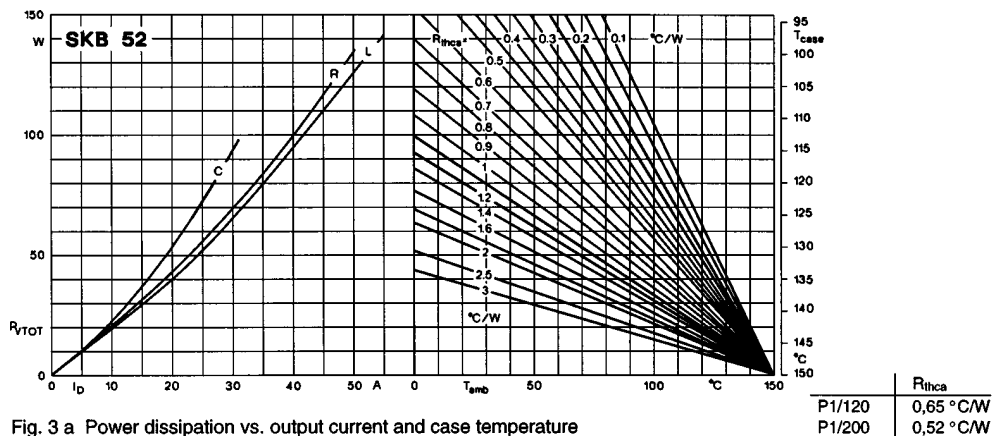


Fig. 3 a Power dissipation vs. output current and case temperature

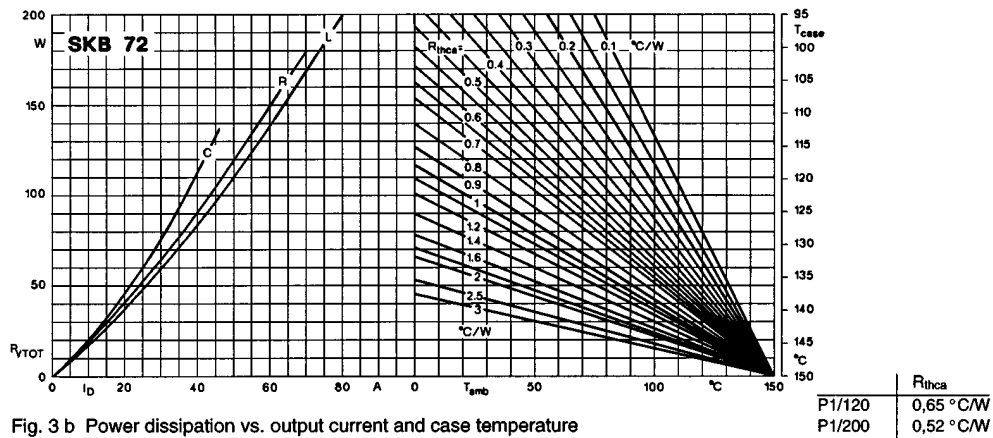


Fig. 3 b Power dissipation vs. output current and case temperature

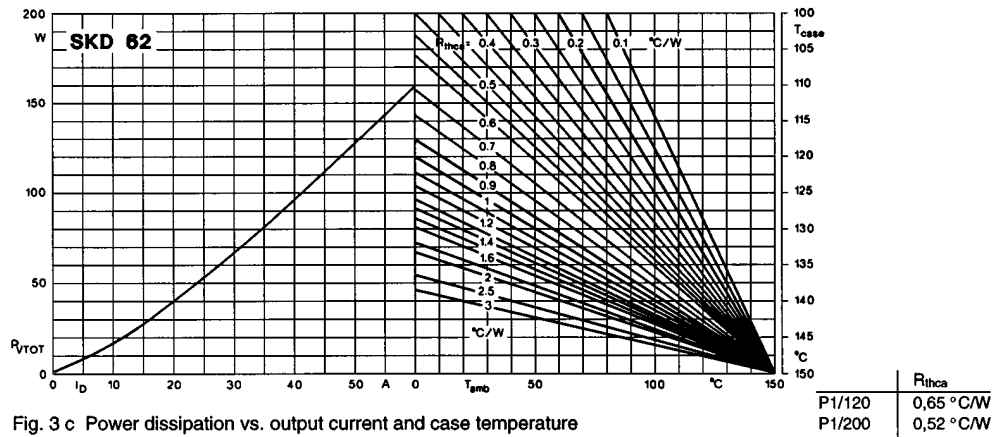


Fig. 3 c Power dissipation vs. output current and case temperature

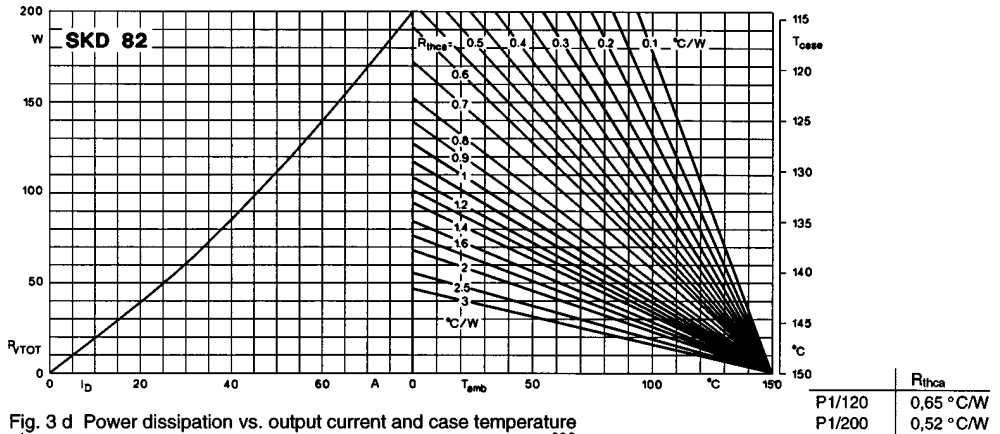


Fig. 3 d Power dissipation vs. output current and case temperature

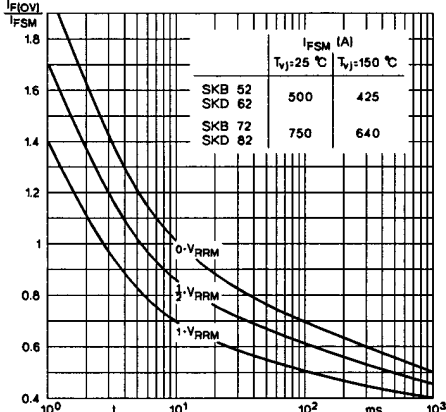


Fig. 5 Surge overload current vs. time

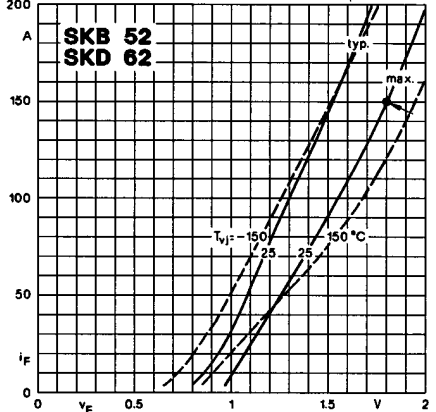


Fig. 9 a Forward characteristics of a single diode

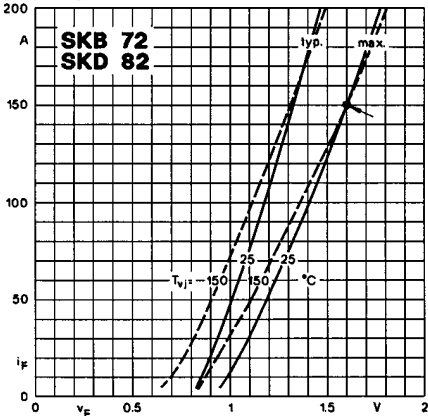


Fig. 9 b Forward characteristics of a single diode

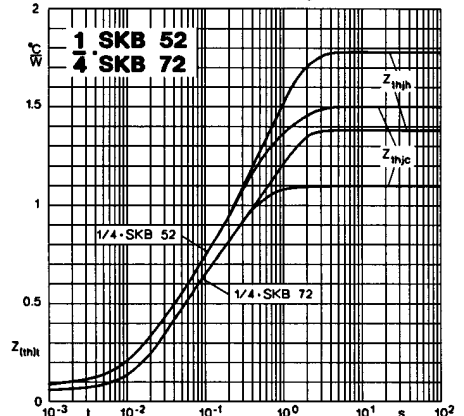
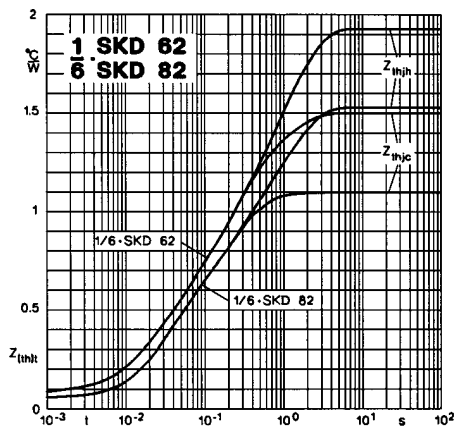


Fig. 12 a Transient thermal impedance vs. time

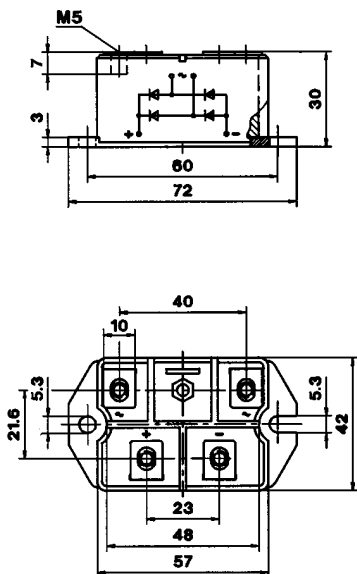


SKB 52

SKB 72

Case G 35

SEMIPONT®3



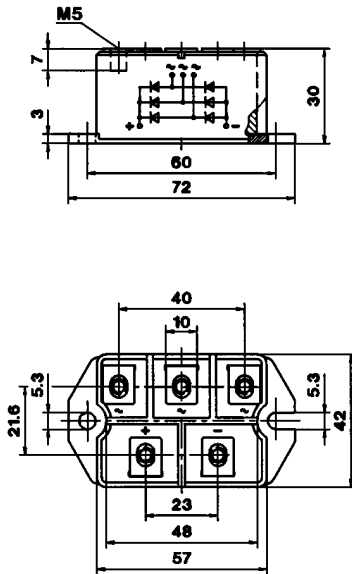
Dimensions in mm

SKD 62

SKD 82

Case G 36

SEMIPONT®3



Dimensions in mm