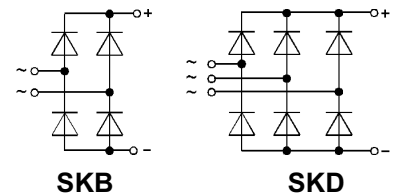


SEMIPONT® 2 Power Bridge Rectifiers

SKB 60
SKD 60
SKD 100

V_{RSM} V_{RRM}	I_D ($T_{case} = \dots \text{ } ^\circ\text{C}$)		
	60 A (88 °C)	60 A (102 °C)	100 A (93 °C)
400 V	SKB 60/04	SKD 60/04	SKD 100/04
800 V	SKB 60/08	SKD 60/08	SKD 100/08
1200 V	SKB 60/12	SKD 60/12	SKD 100/12
1400 V	SKB 60/14	SKD 60/14	SKD 100/14
1600 V	SKB 60/16	SKD 60/16	SKD 100/16

Symbol	Conditions	SKB60	SKD60	SKD100	Units
Id	T _{case} = 85 °C; inductive load	67	92	110	A
	T _{amb} = 45 °C, chassis ¹⁾	20	21	24	A
	P13A/125	25	27	28	A
	R4A/120		30		A
	P1A/120	44	48	54	A
	T _{amb} = 35 °C, P1A/120 F		85	100	A
	P1A/200 F	88	112	120	A
IFSM i ² t	T _{vj} = 25 °C, 10 ms	1000	1000	1150	A
	T _{vj} = 125 °C, 10 ms	850	850	1000	A
	T _{vj} = 25 °C, 8,3...10 ms	5000	5000	6600	A ² s
	T _{vj} = 125 °C, 8,3...10 ms	3600	3600	5000	A ² s
V _F	T _{vj} = 25 °C; I _F = 150 A	1, 6	1,6	1,35	V
V _(TO)	T _{vj} = 125 °C	0,85	0,85	0,85	V
r _T	T _{vj} = 125 °C	5	5	5	mΩ
I _{RD}	T _{vj} = 25/125 °C; V _{RD} = V _{RRM}	0,5/2	0,5/2	0,5/2	mA
R _{thjc} R _{thch} T _{vj} T _{stg}	per diode	1,0	1,0	0,85	°C/W
	total	0,25	0,167	0,14	°C/W
	total	0,05			°C/W
		– 40...+ 125			°C
		– 40...+ 125			°C
V _{isol}	a.c.50...60Hz;r.m.s.;1s/1min	3600 / 3000			V~
M ₁	to heatsink	SI units	5 ± 15 %		Nm
		US units	44 ± 15 %		lb. in.
M ₂	to terminals	SI units	5 ± 15 %		Nm
		US units	44 ± 15 %		lb. in.
w		165			g
Case		G 17	G 18	G 18	



Features

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

¹⁾ Painted metal sheet of minimum 250 x 250 x 1 mm: $R_{thca} = 1,8 \text{ } ^\circ\text{C/W}$

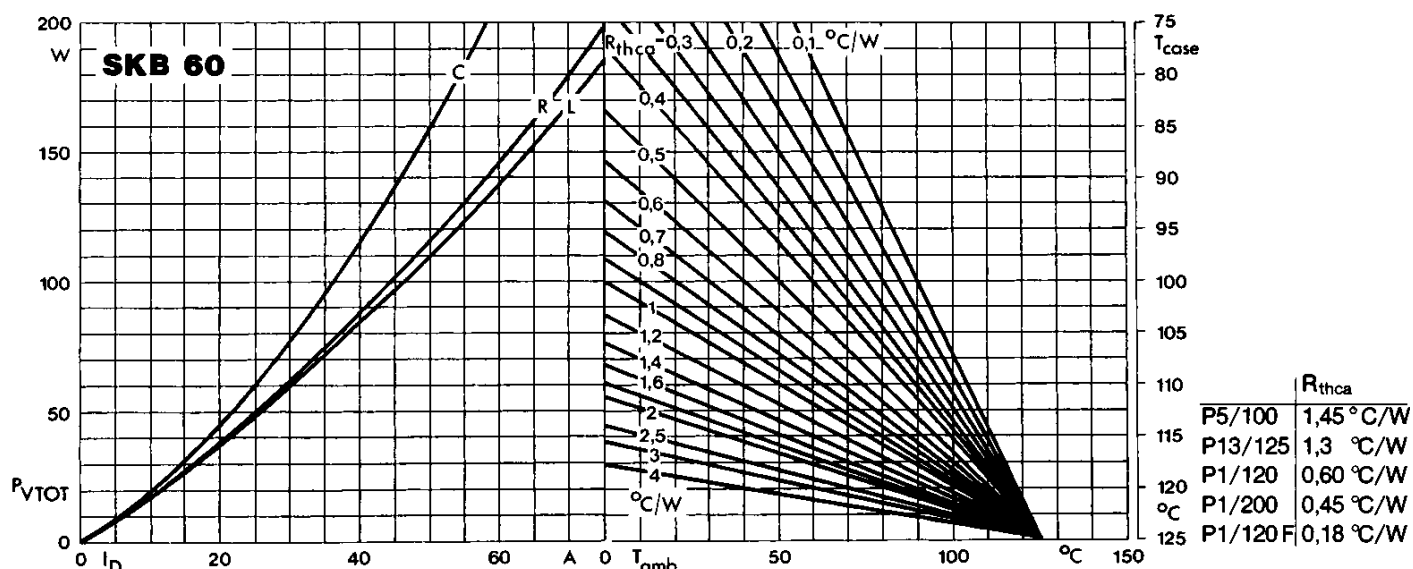


Fig. 3 a Power dissipation vs. output current and case temperature

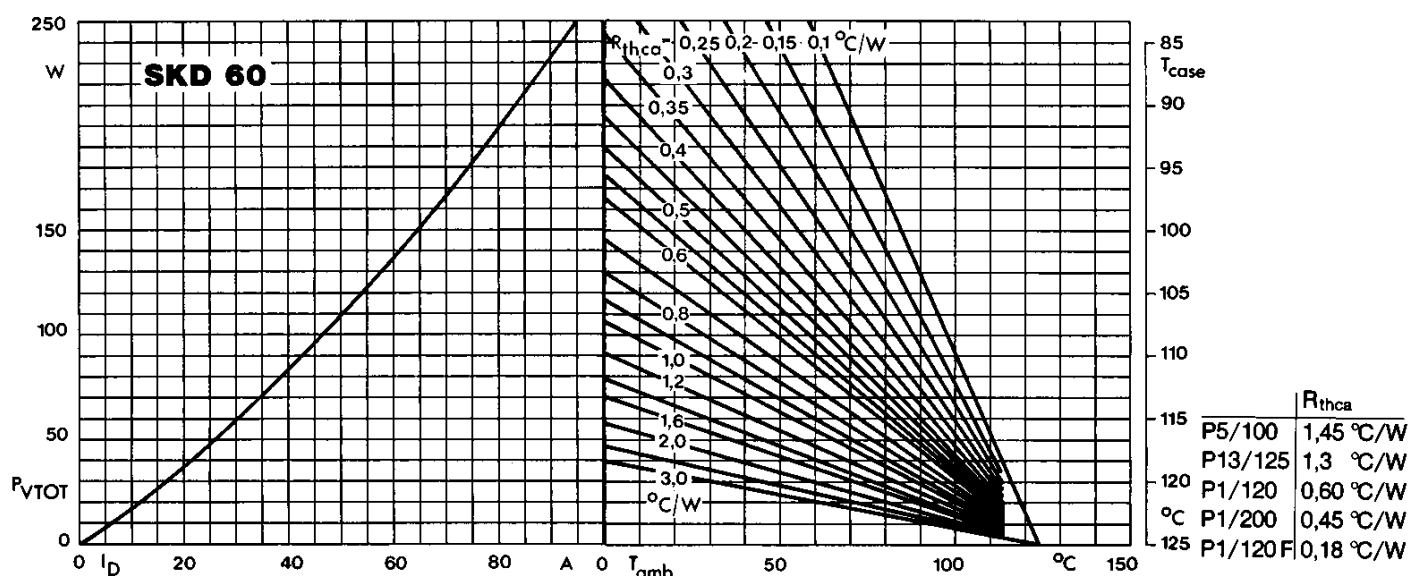


Fig. 3 b Power dissipation vs. output current and case temperature

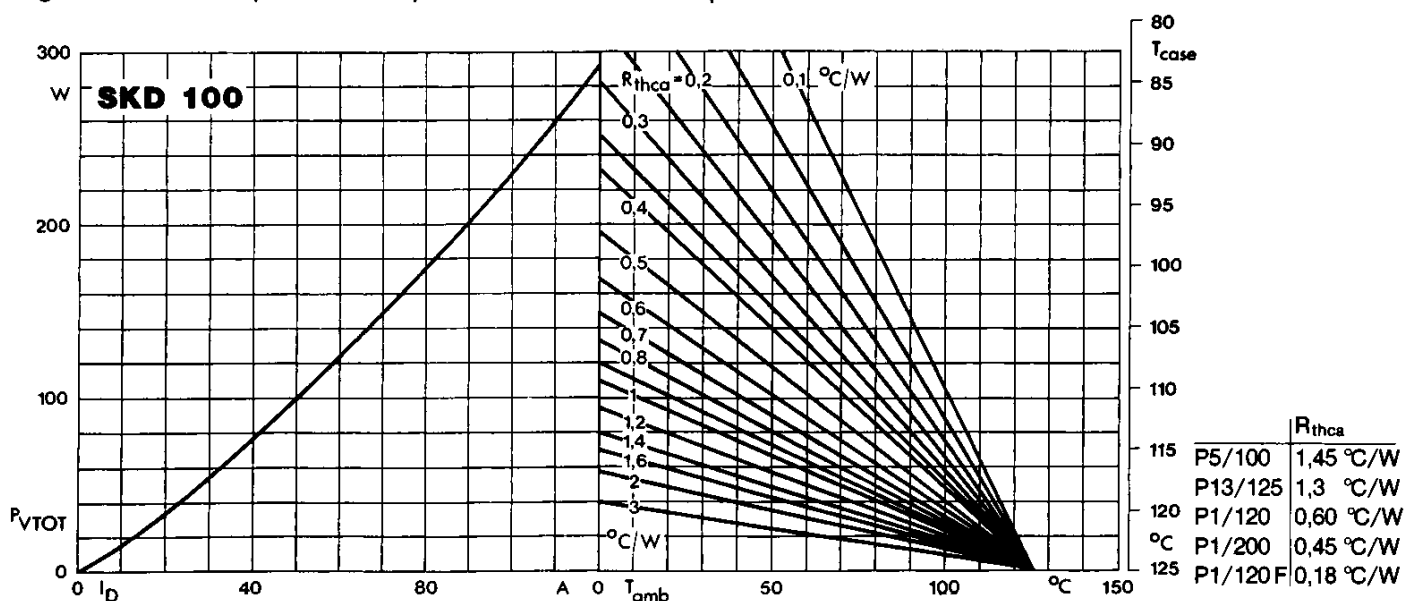


Fig. 3 c Power dissipation vs. output current and case temperature

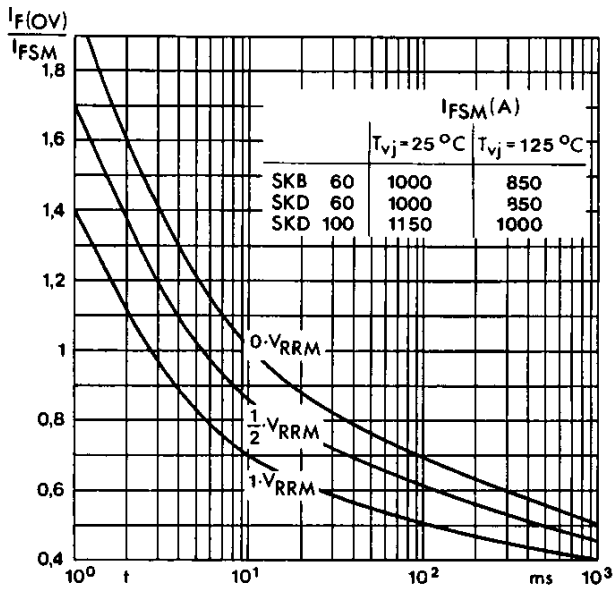


Fig. 5 Surge overload current vs. time

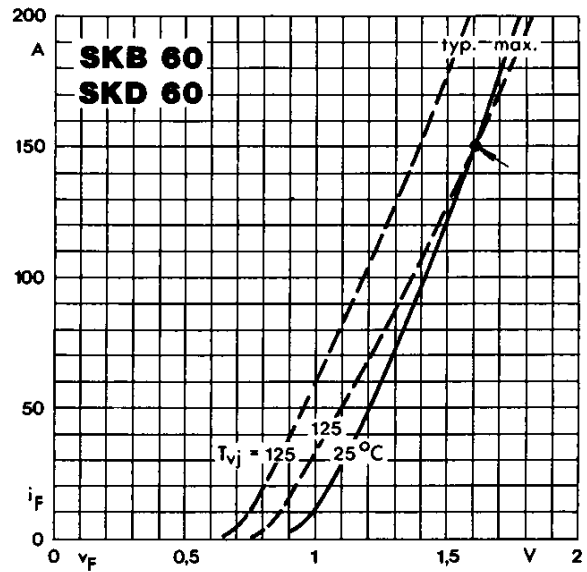


Fig. 9 a Forward characteristics of a single diode

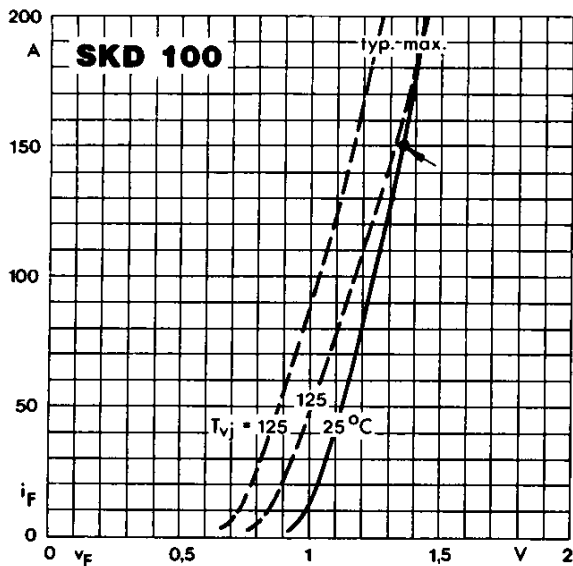


Fig. 9 b Forward characteristics of a single diode

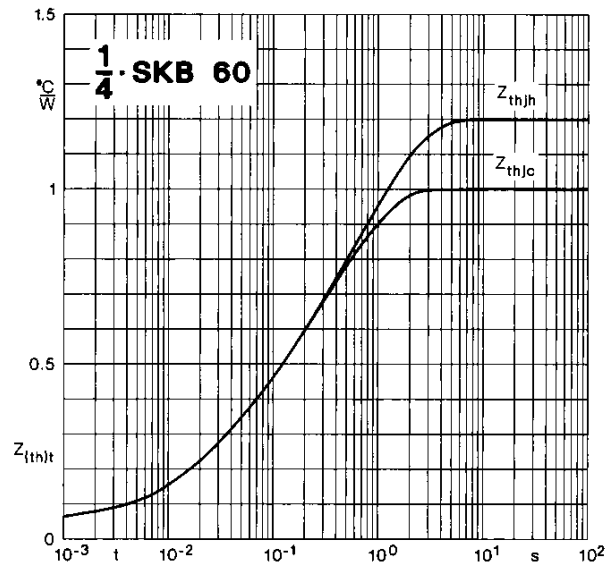


Fig. 12 a Transient thermal impedance vs. time

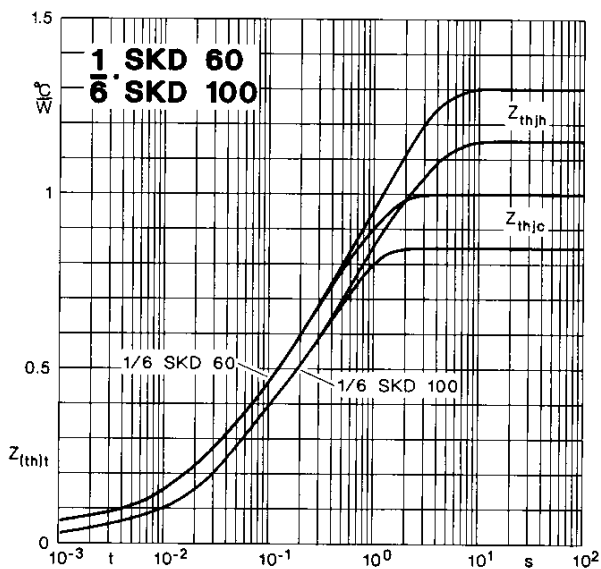
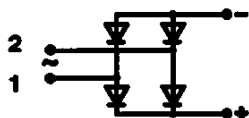
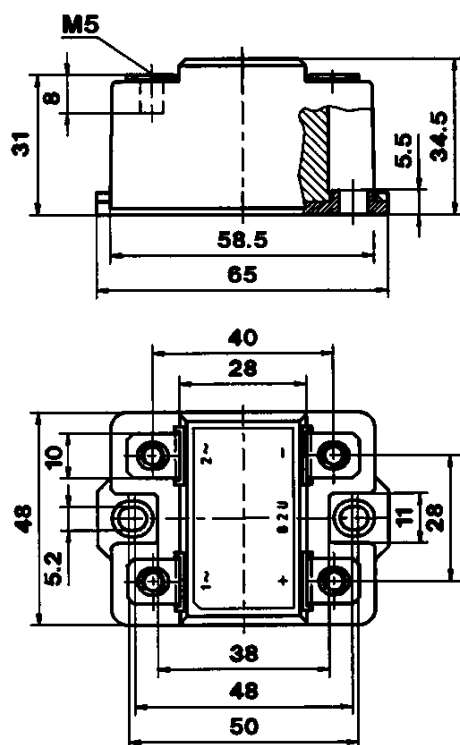
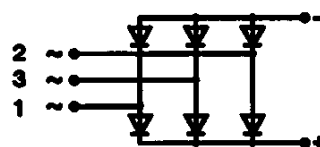
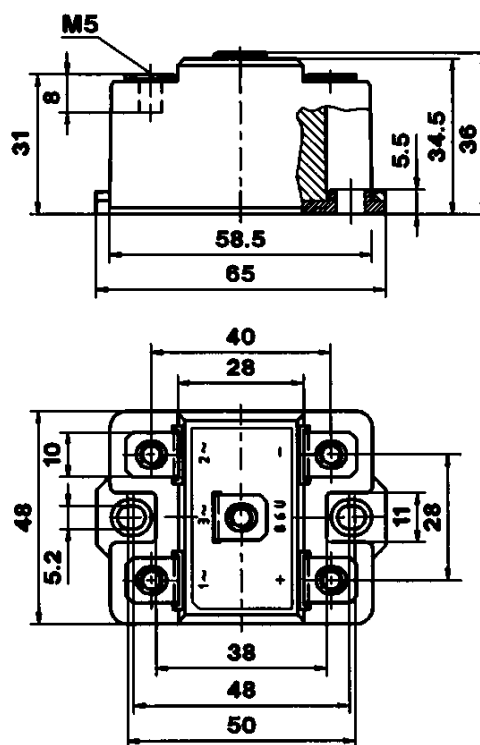


Fig. 12 b Transient thermal impedance vs. time

SKB 60Case G 17
SEMIPONT® 2

Dimensions in mm

SKD 60
SKD 100Case G 18
SEMIPONT® 2

Dimensions in mm