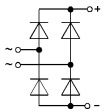
V_{RSM} V_{RRM}	I_D (T_{case} = ... °C) 60 A (88 °C)	60 A (102 °C)	100 A (93 °C)
400 V	**SKB 60/04**	**SKD 60/04**	**SKD 100/04**
800 V	**SKB 60/08**	**SKD 60/08**	**SKD 100/08**
1200 V	**SKB 60/12**	**SKD 60/12**	**SKD 100/12**
1400 V	**SKB 60/14**	**SKD 60/14**	**SKD 100/14**
1600 V	**SKB 60/16**	**SKD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

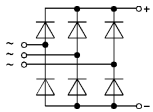
SEMIPONT® 2
Power Bridge Rectifiers

SKB 60
SKD 60
SKD 100

Symbol	Conditions	SKB60	SKD60	SKD100	Units
I_D	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
I_{FSM}	T_{vj} = 25 °C, 10 ms	1000	1000	1150	A
	T_{vj} = 125 °C, 10 ms	850	850	1000	A
i^2t	T_{vj} = 25 °C, 8,3...10 ms	5000	5000	6600	A^2s
	T_{vj} = 125 °C, 8,3...10 ms	3600	3600	5000	A^2s
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}	per diode	1,0	1,0	0,85	°C/W
	total	0,25	0,167	0,14	°C/W
R_{thch}	total	0,05			°C/W
T_{vj}		– 40...+ 125			°C
T_{stg}		– 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	



SKB



SKD

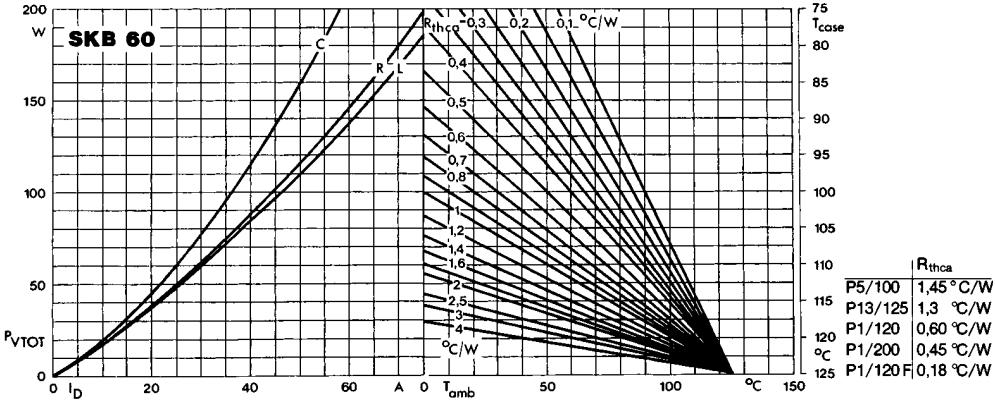
Features

- 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

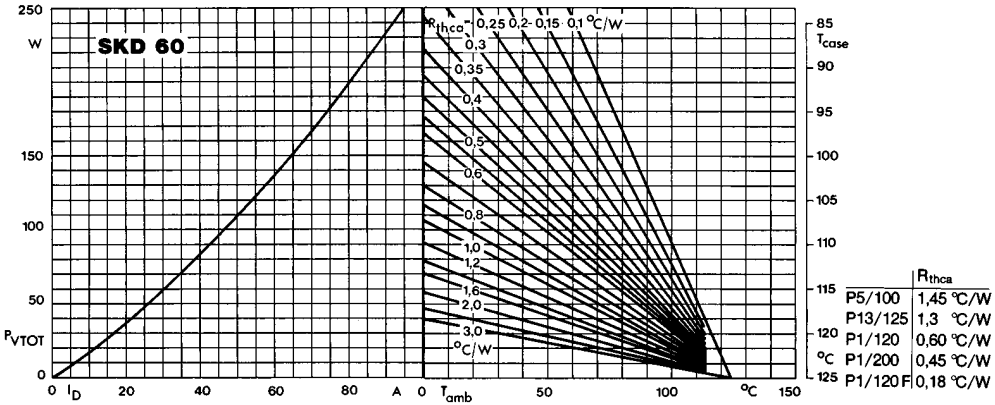
- Single and three phase rectifiers for power supplies
- Input rectifiers for variable frequency drives
- Rectifiers for DC motor field supplies
- Battery charger rectifiers

1) Painted metal sheet of minimum 250 x 250 x 1 mm: Rh_{thca} = 1,8 °/W



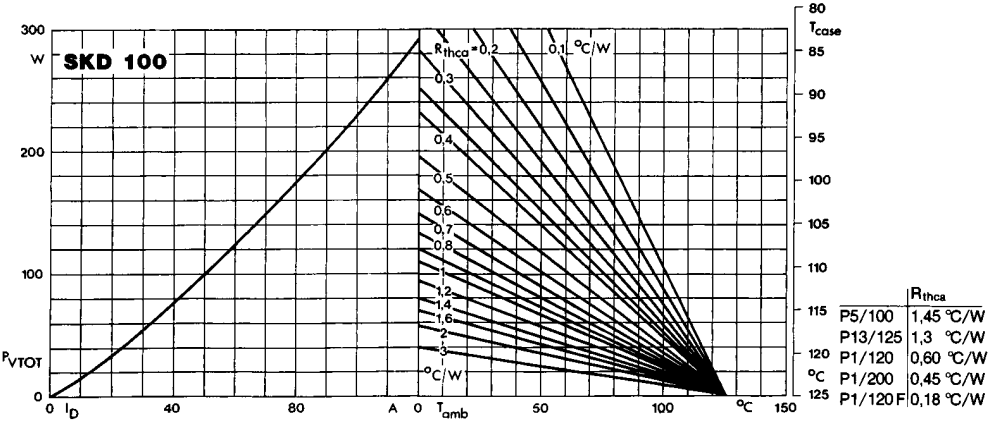
	R_{thca}
P5/100	1,45 °C/W
P13/125	1,3 °C/W
P1/120	0,60 °C/W
P1/200	0,45 °C/W
P1/120 F	0,18 °C/W

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



	R_{thca}
P5/100	1,45 °C/W
P13/125	1,3 °C/W
P1/120	0,60 °C/W
P1/200	0,45 °C/W
P1/120 F	0,18 °C/W

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



	R_{thca}
P5/100	1,45 °C/W
P13/125	1,3 °C/W
P1/120	0,60 °C/W
P1/200	0,45 °C/W
P1/120 F	0,18 °C/W

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

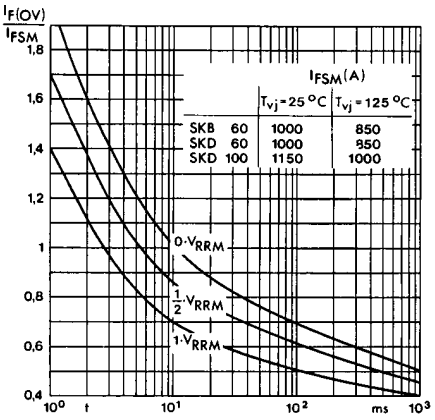


Fig. 5 Surge overload current vs. time

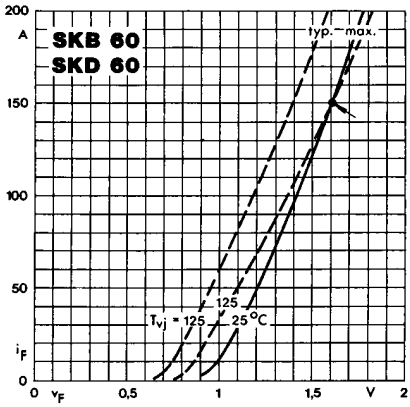


Fig. 9 a Forward characteristics of a single diode

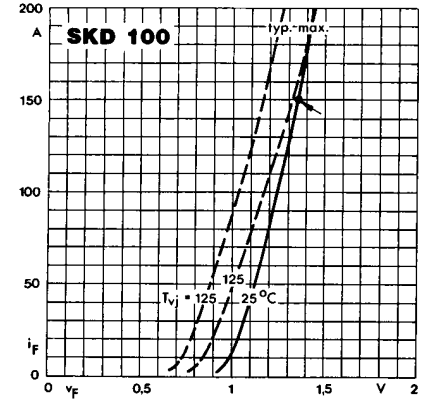


Fig. 9 b Forward characteristics of a single diode

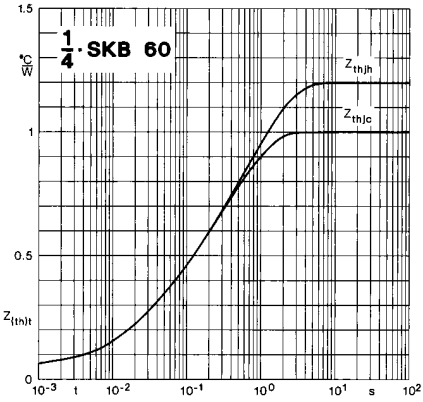


Fig. 12 a Transient thermal impedance vs. time

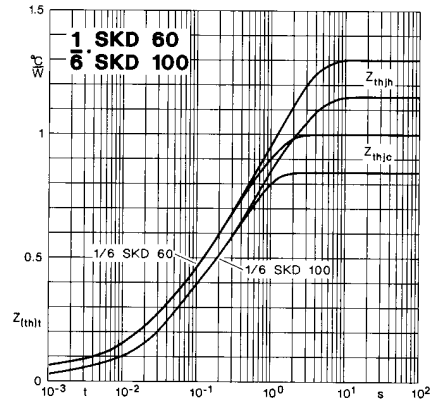
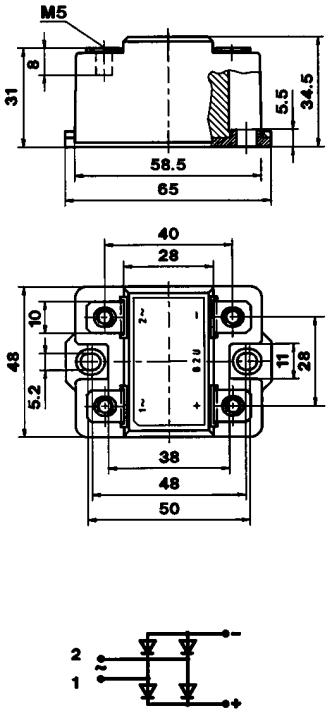


Fig. 12 b Transient thermal impedance vs. time

SKB 60

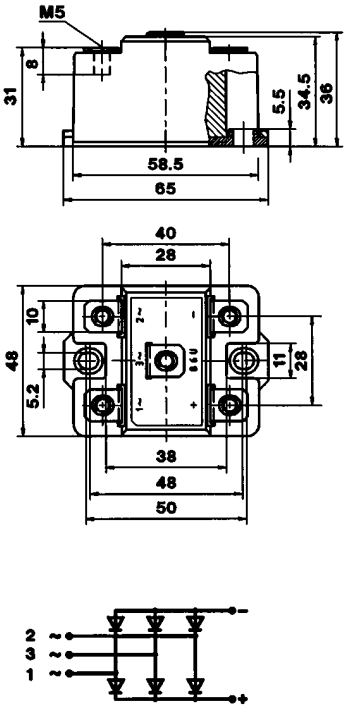
Case G 17
SEMIPONT® 2



Dimensions in mm

SKD 60
SKD 100

Case G 18
SEMIPONT® 2



Dimensions in mm