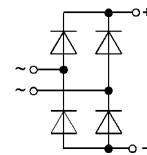


Power Bridge Rectifiers

SKB B . . / . -4
SKBa B . . / . -4
SKB 15



Features

- Square plastic case with screw terminals
- Blocking voltage to 1600 V
- **SKB 15** with metal baseplate for improved heat transfer
- **SKBa** with avalanche characteristics

Typical Applications

- Internal power supplies for electronic equipment
- Electronic control equipment
- DC motors
- Field rectifiers for DC motors
- Battery charger rectifiers
- Avalanche type for inductive loads:
Solenoids,
Motor brakes

V _{RSM} V _{RRM}	V _{VRMS} V	I _D			
		5 A (T _{amb} = 45 °C)		15 A (T _{case} = 117 °C)	
V	V	Types	R _{min} Ω	Types	R _{min} Ω
200	60	–	–	SKB 15/02 A2	0,15
400	125	SKB B 80/70-4	0,5	SKB 15/04 A2	0,3
800	250	SKB B 250/220-4	1	SKB 15/08 A2	0,5
1200	380	SKB B 500/445-4	2	SKB 15/12 A2	0,75
1400	440	–	–	SKB 15/14 A2	0,9
1600	500	–	–	SKB 15/16 A2	1
V _(BR) min	V _{VRMS} V	Avalanche Type			
1300	500	SKBa B 500/445-4	2	–	

Symbol	Conditions	SKB.. -4 SKBa.. -4	SKB 15	Units
I _D	T _{amb} = 45 °C; isolated ¹⁾ chassis ²⁾ P5A/100	5 5 –	5 11 17	A A A
I _{DCL}	T _{amb} = 45 °C; isolated ¹⁾ chassis ²⁾ P5A/100	4 4 –	4 9 14	A A A
I _{FSM}	T _{vj} = 25 °C, 10 ms	180	370	A
i ² t	T _{vj} = 150 °C, 10 ms	150	320	A
	T _{vj} = 25 °C, 8,3...10 ms	160	680	A ² s
	T _{vj} = 150 °C, 8,3...10 ms	110	500	A ² s
P _{RSM}	t _p = 10 μs; avalanche type	3000	–	W
V _F	T _{vj} = 25 °C; I _F = 80 A	2,65	–	V
	I _F = 150 A	–	2,2	V
V _(TO)	T _{vj} = 150 °C	0,8	0,85	V
r _T	T _{vj} = 150 °C	24	12	mΩ
I _{RD}	T _{vj} = 25 °C; V _{RD} = V _{RRM}	0,1	0,3	mA
	V _{RD} = V _{(BR)min}	10	–	μA
	T _{vj} = 150 °C; V _{RD} = V _{RRM}	0,6	5	mA
t _{rr}	T _{vj} = 25 °C	typ. 10		μs
f _G		2000		Hz
R _{thjc}	total	–	1	°C/W
R _{thch}	total	–	0,3	°C/W
R _{thja}	isolated ¹⁾	13	12	°C/W
	chassis ²⁾	–	4,3	°C/W
	P5A/100	–	2,7	°C/W
T _{vj}		– 40...+150		°C
T _{stg}		– 55...+150		°C
V _{isol}	a.c. 50...60 Hz; r.m.s.; 1 s / 1 min	–	3000/2500	V~
RC	P _R = 1 W	20 ... 50	20 ... 50	Ω
F _u		10	100	nF
M ₁	to heatsink	6	20	A
	SI units	1,5 ± 15 %		Nm
	US units	13 ± 15 %		lb. in.
M ₂	to terminals	1 ± 15 %		Nm
	SI units	9 ± 15 %		lb. in.
	US units			g
w		60	65	
Case		G 8	G 9	

¹⁾ Freely suspended or mounted on an insulator

²⁾ Mounted on a painted metal sheet of min. 250 x 250 x 1 mm

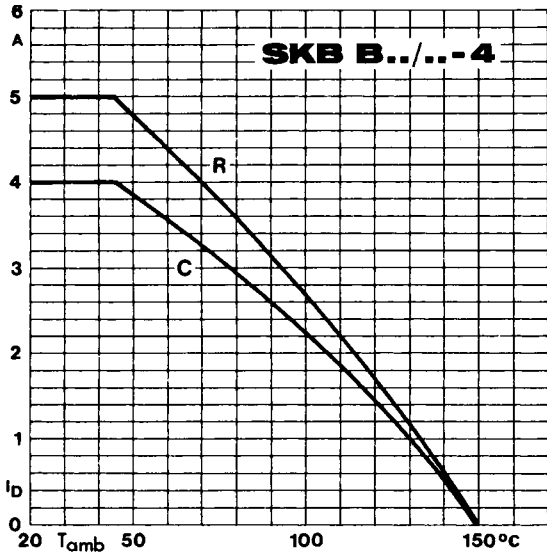


Fig. 1 Rated output current vs. ambient temperature

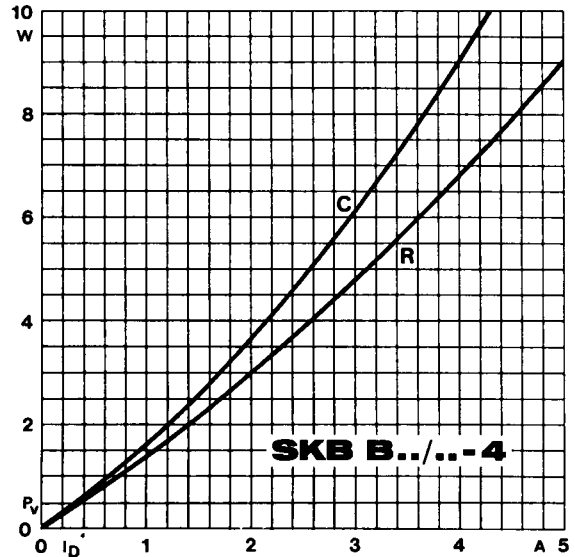


Fig. 2 Power dissipation vs. output current

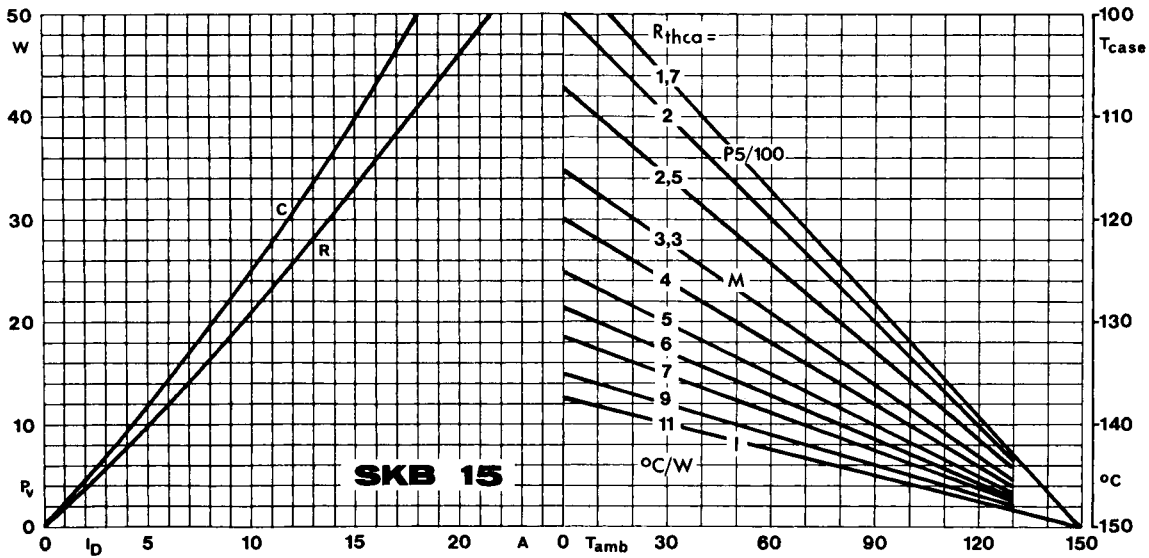


Fig. 3 Power dissipation vs. output current and case temperature

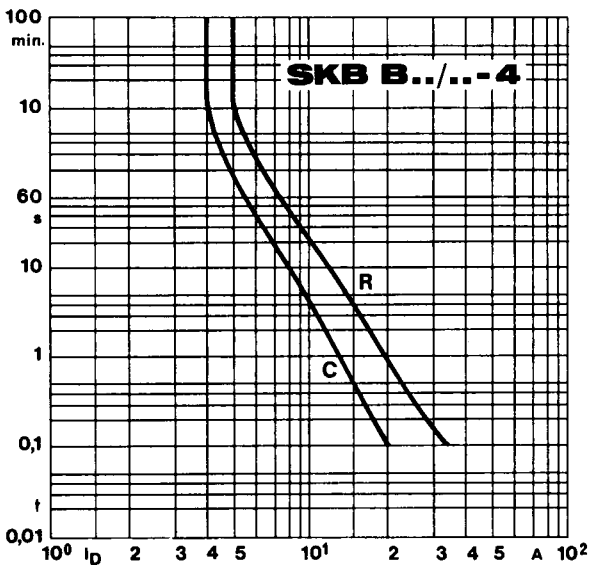


Fig. 6 a Rated overload current vs. time

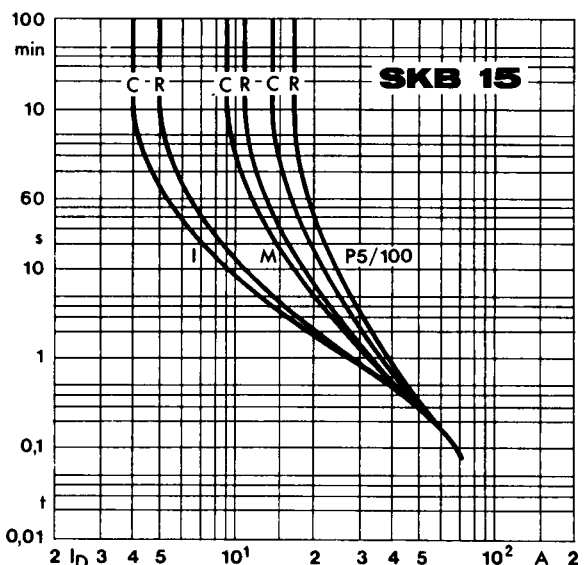


Fig. 6 b Rated overload current vs. time

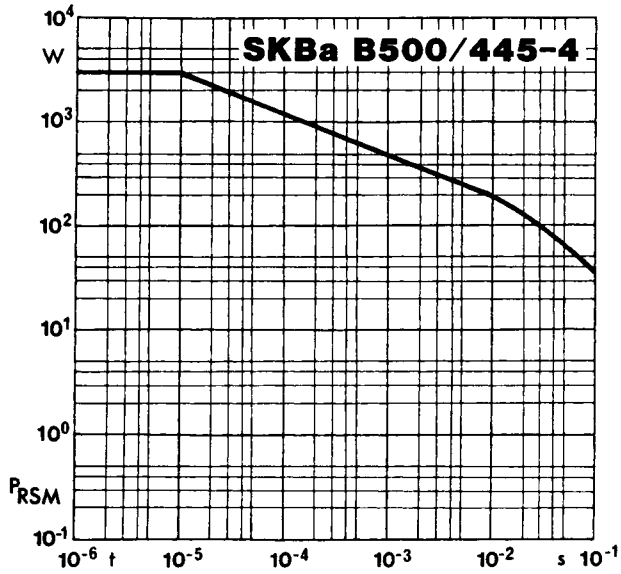


Fig. 7 Rated reverse power dissipation vs. time

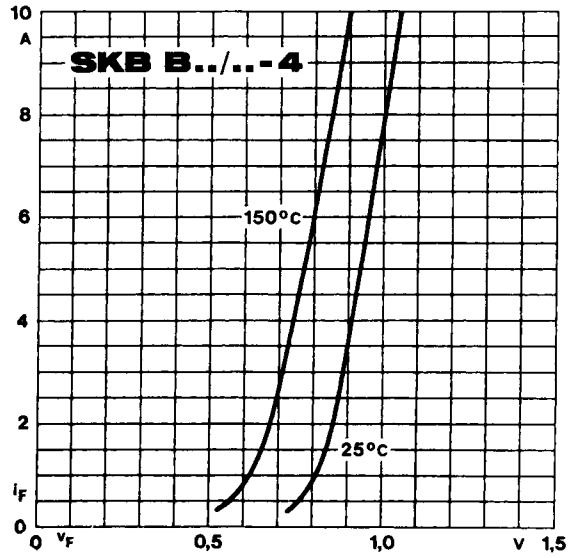


Fig. 9 a Forward characteristics of a single diode

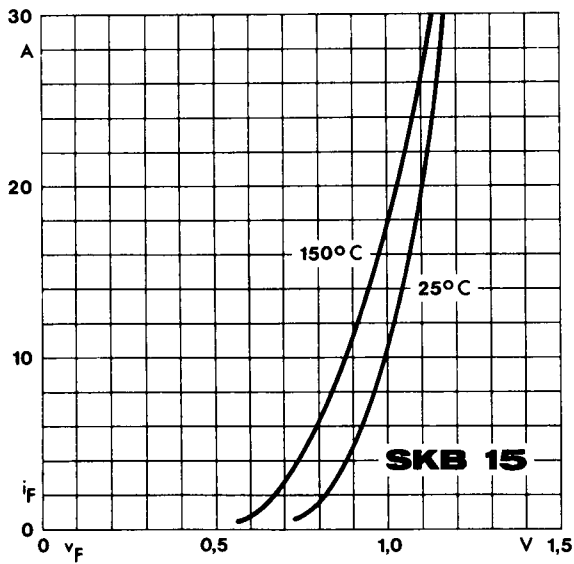
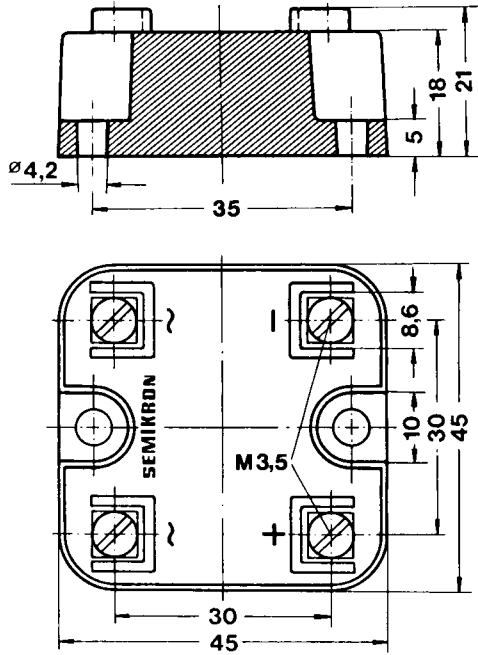


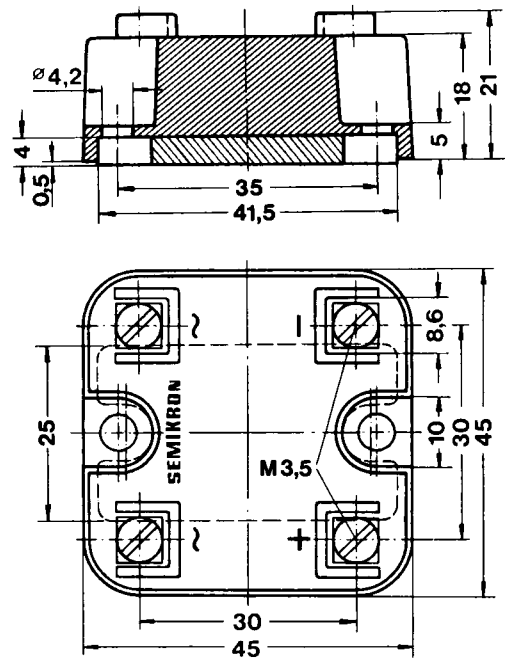
Fig. 9 b Forward characteristics of a single diode

SKBB.../...4
 SKBaB.../...4
 Case G 8



Dimensions in mm

SKB 15
 Case G 9



Dimensions in mm