



Power Bridge Rectifiers

SKB 50

Features

- Isolated metal case with screw terminals
- Blocking voltage to 1600 V
- High surge current
- Easy chassis mounting

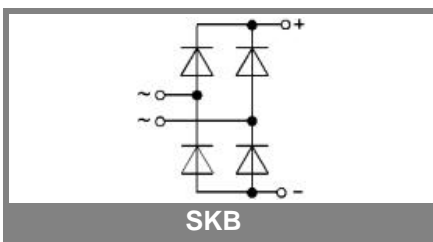
Typical Applications

- Single phase rectifiers for power supplies
- Input rectifiers for variable frequency drives
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Recommended snubber network:
RC: 0.1 μ F, 50 Ω ($P_R = 1$ W)

- 1) Freely suspended or mounted on an insulator
- 2) Mounted on a painted metal sheet of min. 250 x 250 x 1 mm

V_{RSM}, V_{RRM} V	V_{VRMS} V	$I_D = 50$ A ($T_c = 64$ °C) Types	C_{max} μ F	R_{min} Ω
200	60	SKB 50/02 A3		0,1
400	125	SKB 50/04 A3		0,3
800	250	SKB 50/08 A3		0,4
1200	380	SKB 50/12 A3		0,6
1400	440	SKB 50/14 A3		0,7
1600	500	SKB 50/16 A3		0,8

Symbol	Conditions	Values	Units	
I_D	$T_a = 45$ °C, isolated ¹⁾	10	A	
	$T_a = 45$ °C, chassis ²⁾	20	A	
I_{DCL}	$T_a = 45$ °C, isolated ¹⁾	8	A	
	$T_a = 45$ °C, chassis ²⁾	16	A	
	$T_a = 35$ °C, P1A/120 F	40	A	
I_{FSM}	$T_{vj} = 25$ °C, 10 ms	750	A	
	$T_{vj} = 150$ °C, 10 ms	600	A	
i^2t	$T_{vj} = 25$ °C, 8,3 ... 10 ms	2800	A ² s	
	$T_{vj} = 150$ °C, 8,3 ... 10 ms	1800	A ² s	
V_F	$T_{vj} = 25$ °C, $I_F = 150$ A	max. 1,6	V	
$V_{(TO)}$	$T_{vj} = 150$ °C	max. 0,85	V	
r_T	$T_{vj} = 150$ °C	max. 8	m Ω	
I_{RD}	$T_{vj} = 25$ °C, $V_{RD} = V_{RRM}$	1000	μ A	
	$T_{vj} =$ °C, $V_{RD} = V_{RRM} \geq V$		μ A	
I_{RD}	$T_{vj} = 150$ °C, $V_{RD} = V_{RRM}$	10	mA	
	$T_{vj} =$ °C, $V_{RD} = V_{RRM} \geq V$		mA	
t_{tr}	$T_{vj} = 25$ °C	10	μ s	
f_G		2000	Hz	
$R_{th(j-a)}$	isolated ¹⁾	5,7	K/W	
	chassis ²⁾	2,5	K/W	
	total	0,65	K/W	
	$R_{th(j-c)}$	total	0,06	K/W
	$R_{th(c-s)}$	total		K/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~	
M_s	to heatsink	5 \pm 15 %	Nm	
M_t	to terminals	3 \pm 15 %	Nm	
a			m/s ²	
w		250	g	
F_u		50	A	
Case		G 14		



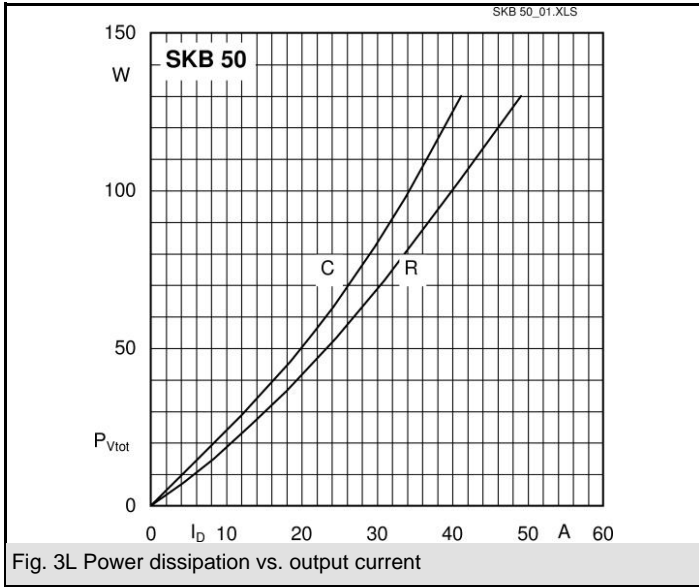


Fig. 3L Power dissipation vs. output current

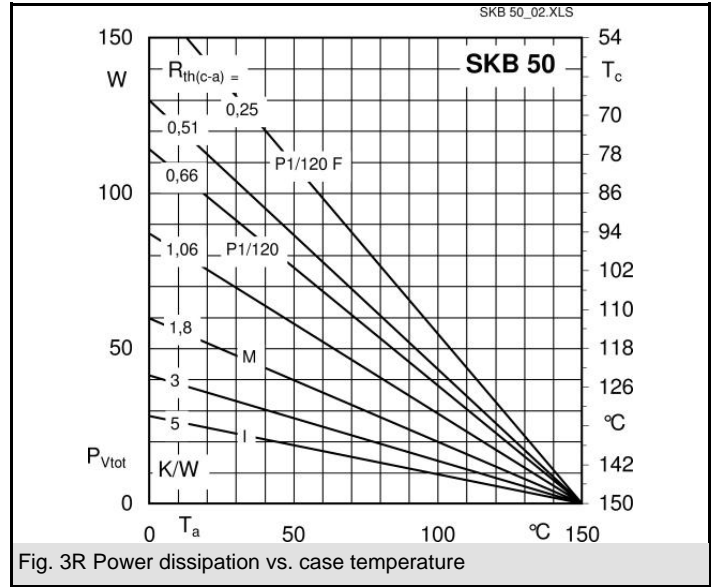


Fig. 3R Power dissipation vs. case temperature

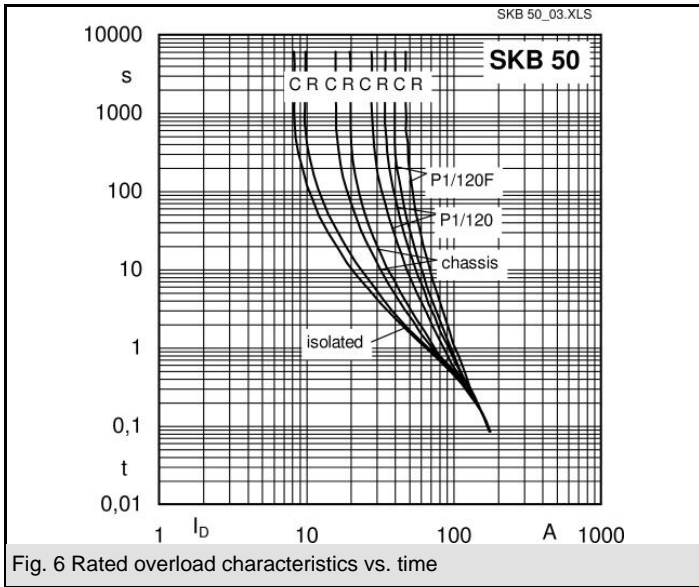


Fig. 6 Rated overload characteristics vs. time

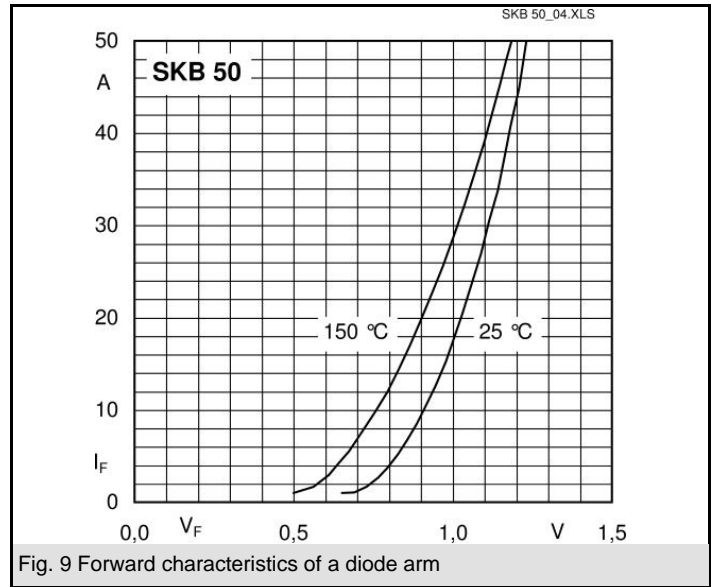
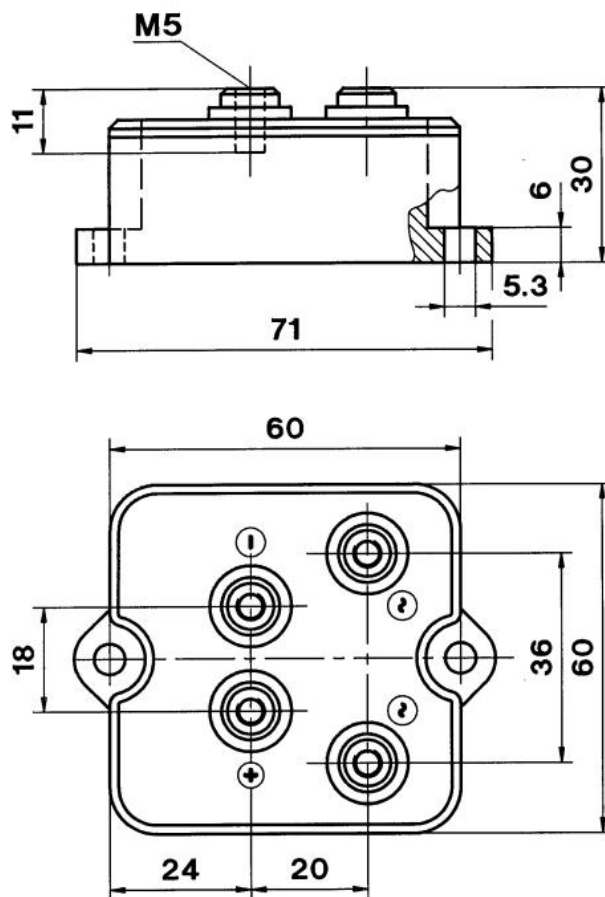


Fig. 9 Forward characteristics of a diode arm



Case G 14

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