V_{RRM} V	V_{RSM} V	V_{VRMS} V	I_D (T_{case} = 127 °C) 50 [1] A
400	500	125	**SKD 51/04**
800	900	250	**SKD 51/08**
1200	1300	380	**SKD 51/12**
1400	1500	440	**SKD 5114**
1600	1700	500	**SKD 51/16**
1800	1900	570	**SKD 51/18***

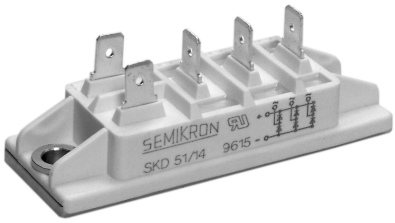
Symbol	Conditions	SKD 51	Units
I_D, I_{DCL}	T_{case} = 127 °C	50 [1]	A
	T_{amb} = 45 °C; isolated [2]	7	A
	chassis [3]	18	A
	R4A/120	27	A
	P5A/100	31	A
	P1A/120	52	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	775	A
	T_{vj} = 150 °C; 10 ms	700	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	3000	A^2s
	T_{vj} = 150 °C; 8,3 ... 10 ms	2450	A^2s
V_F	T_{vj} = 25 °C; I_F = 75 A	1,45	V
$V_{(TO)}$	T_{vj} = 150 °C	0,8	V
r_T	T_{vj} = 150 °C	8,5	mΩ
I_{RD}	T_{vj} = 25 °C; V_{RD} = V_{RRM}	0,2	mA
	T_{vj} = 150 °C; V_{RD} = V_{RRM}	4	mA
t_{rr}	T_{vj} = 25 °C; I_F = I_R = 1 A	typ. 5	µs
f_G		2000	Hz
R_{thjc}	per diode	1,1	°C/W
	total	0,183	°C/W
R_{thch}	total	0,1	°C/W
R_{thja}	isolated [2]	9	°C/W
	chassis [3]	3,15	°C/W
	P5A/100	1,8	°C/W
	R4A/120	1,15	°C/W
	P1A/120	0,883	°C/W
T_{vj}		– 40 ... + 150	°C
T_{stg}		– 40 ... + 125	°C
V_{isol}	a. c. 50 Hz; r.m.s; 1 s/1 min	3600 / 3000	V~
RC	P_R = 1 W	50	Ω
		0,1	µF
M_1	Case to heatsink SI units	4,5 ± 15 %	Nm
	US units	40 ± 15 %	lb. in.
w		97	g
Case	→ page B 11 – 38	G 51	

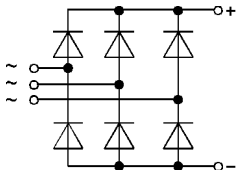
* available in limited quantities

[1] For solder connection.
Permissible current for plug connection see DIN IEC 760E and DIN 46249 part 1
[2] Freely suspended or mounted on an insulator
[3] Mounted on a painted metal sheet of min. 250 x 250 x 1 mm

Power Bridge Rectifiers

SKD 51





Features

- Glass passivated silicon chips
- Fast-on terminals for pcb solder or plug-on connection
- Sturdy isolated metal base plate
- Low thermal impedance through use of direct copper bonded aluminum substrate (DCB)
- Blocking voltage up to 1800 V
- High surge currents
- UL recognized, file no. E63 532

Typical Applications

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

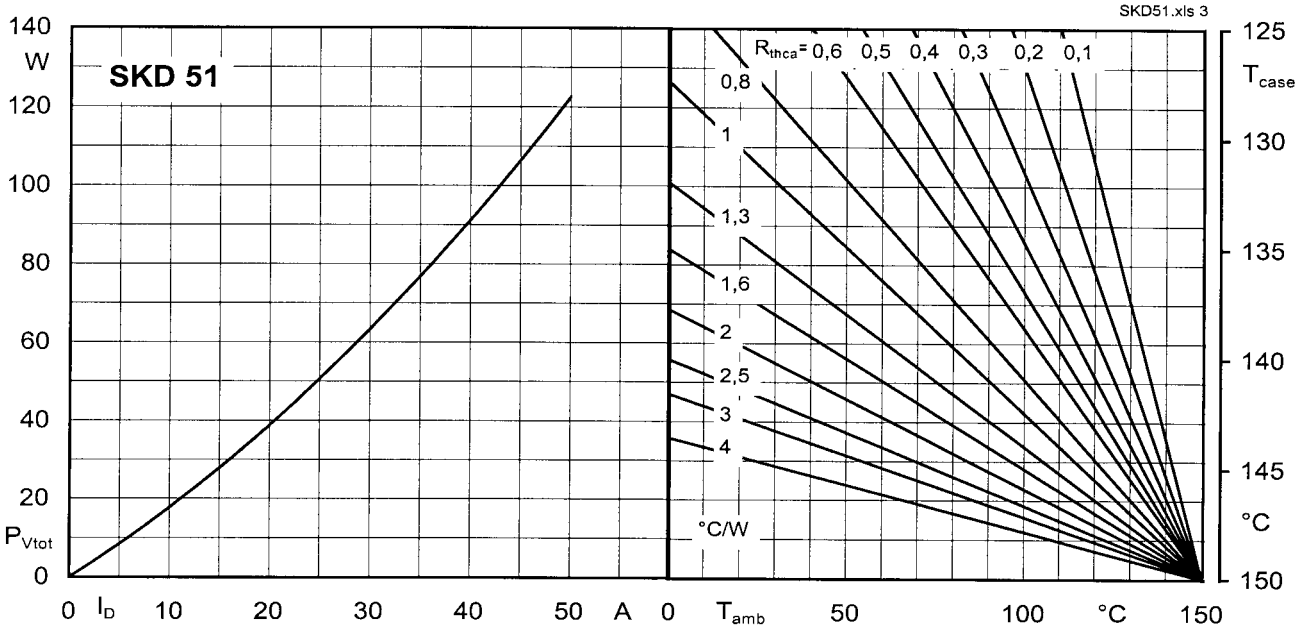
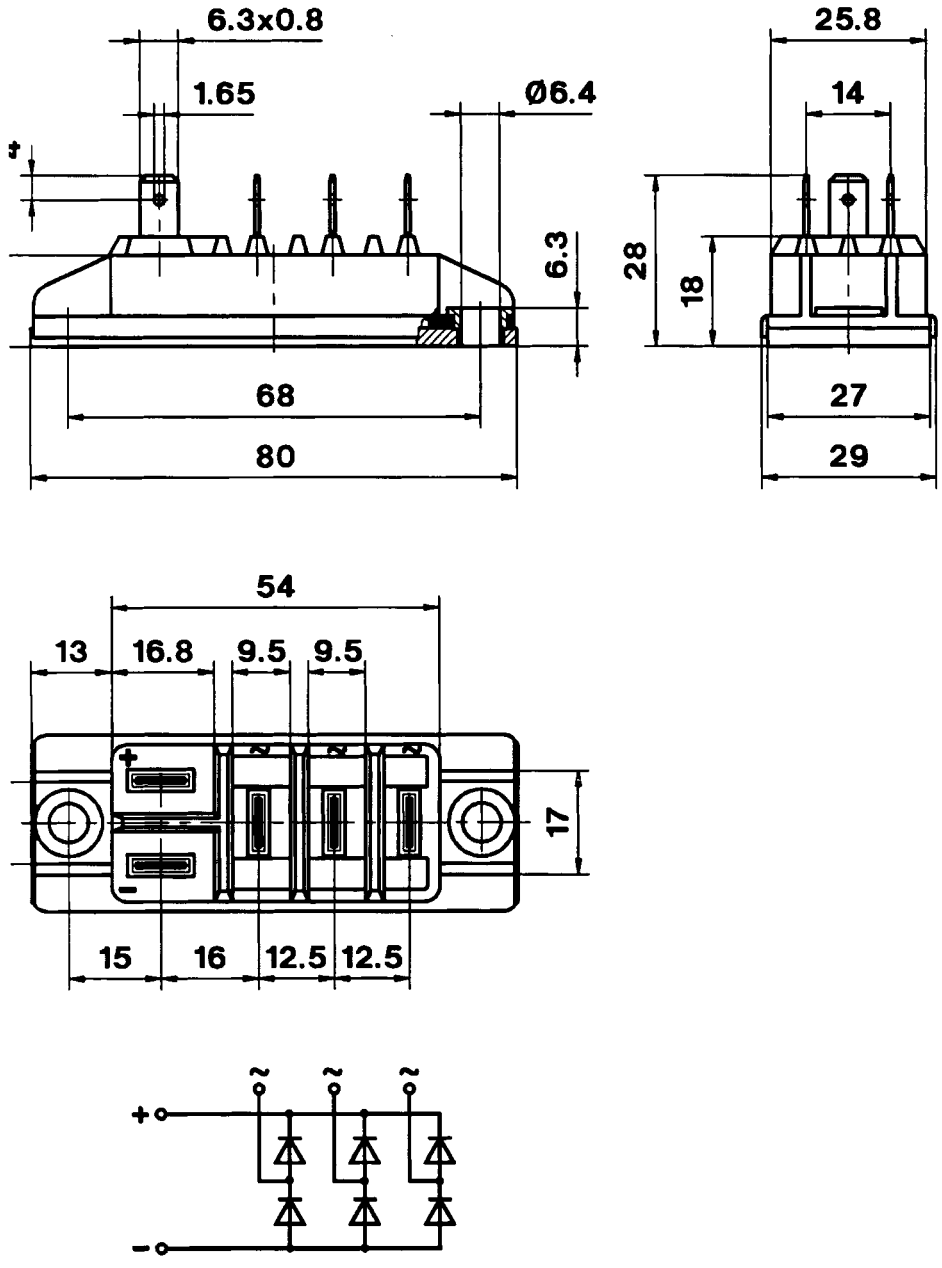


Fig. 3 Power dissipation vs. output current and case temperature

SKD 51

Case G 51



Dimensions in mm

