V_{RRM}	V_{RSM}	I_D (T_h [1] = . . . °C)		
V	V	33 A (110 °C)	53 A (100 °C)	83 A (95 °C)
400	500	**SKD 33/04**	**SKD 53/04**	**SKD 83/04**
800	900	**SKD 33/08**	**SKD 53/08**	**SKD 83/08**
1200	1300	**SKD 33/12**	**SKD 53/12**	**SKD 83/12**
1400	1600	**SKD 33/14**	**SKD 53/14**	**SKD 83/14**
1600	1700	**SKD 33/16**	**SKD 53/16**	**SKD 83/16**
1800	1900	**SKD 33/18**	**SKD 53/18**	**SKD 83/18**

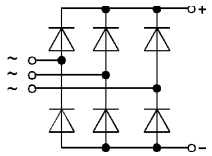
Symbol	Conditions	SKD 33	SKD 53	SKD 83	Units
I_D, I_{DCL}		36	53	83	A
	(T_h [1] = . . . °C)	(106)	(100)	(95)	°C
	T_{amb} = 45 °C; isolated [2]	4	4	4	A
	chassis [3]	16	18	20	A
	P5A/100	24	27	32	A
	R4A/120	25	29	34	A
	P1A/120	34	39	48	A
	T_{amb} = 35 °C, P1A/120F	50	63	83	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	300	370	700	A
	T_{vj} = 150 °C; 10 ms	240	270	560	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	450	685	2 450	A^2s
	T_{vj} = 150 °C; 8,3 ... 10 ms	290	365	1 570	A^2s
V_F	T_{vj} = 25 °C; (I_F = . . . A); max.	1,60 (50)	1,50 (50)	1,45 (80)	V
$V_{(TO)}$	T_{vj} = 150 °C	0,8	0,8	0,8	V
r_T	T_{vj} = 150 °C	18	13	7,5	mΩ
I_{RD}	T_{vj} = 25 °C; V_{RD} = V_{RRM}	0,2	0,2	0,2	mA
	T_{vj} = 150 °C; V_{RD} = V_{RRM}	4	4	4	mA
R_{thjh}	per diode	2,5	1,9	1,4	°C/W
	total	0,417	0,317	0,233	°C/W
R_{thja}	isolated [2]	15,02	14,92	14,83	°C/W
	chassis [3]	3,02	2,92	2,83	°C/W
	P5A/100	1,77	1,67	1,58	°C/W
	R4A/120	1,67	1,57	1,48	°C/W
	P1A/120	1,12	1,02	0,93	°C/W
	P1A/120F	0,67	0,57	0,48	°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~
T_{solder}	10 s	250 ± 10			°C
M_1	Case to heatsink SI units	2 ± 15 %			Nm
	US units	18 ± 15 %			lb. in.
a		5 · 9,81			m/s^2
w		30			g
Case		G 55			

[1] T_h = heatsink temperature
[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 33
SKD 53
SKD 83

Preliminary Data



Features

- Glass passivated silicon chips
- Low thermal impedance through use of direct copper bonded aluminum substrate (DCB) base plate
- Blocking voltage up to 1800 V
- Suitable for PCB mounting and wave soldering
- For applications with high vibrations we recommend to fasten the bridge to the pcb with 4 selftapping screws
- UL recognition applied for

Typical Applications

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

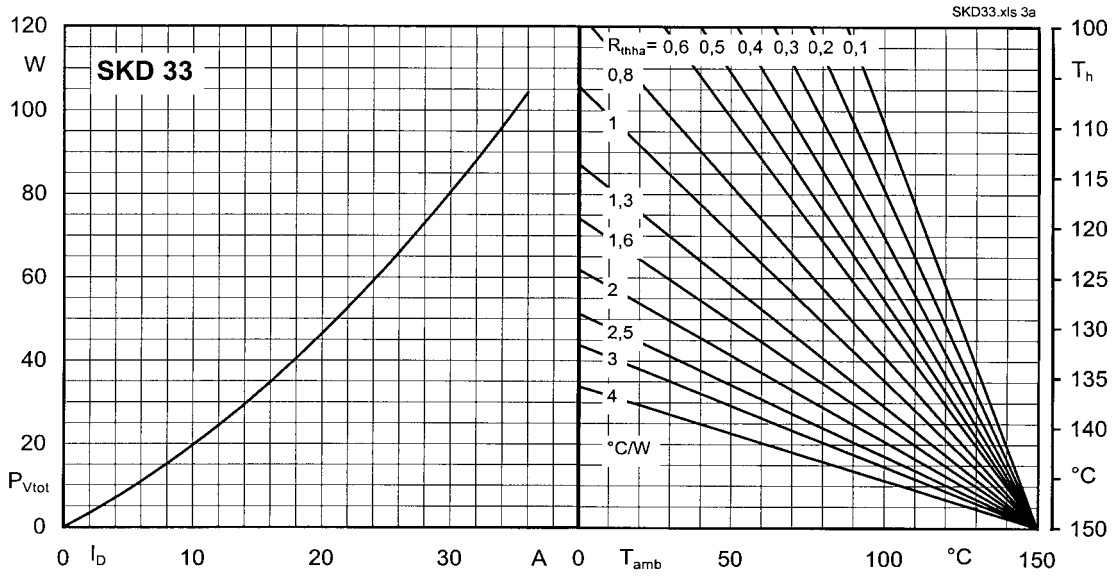


Fig. 3 a Power dissipation vs. output current and case temperature

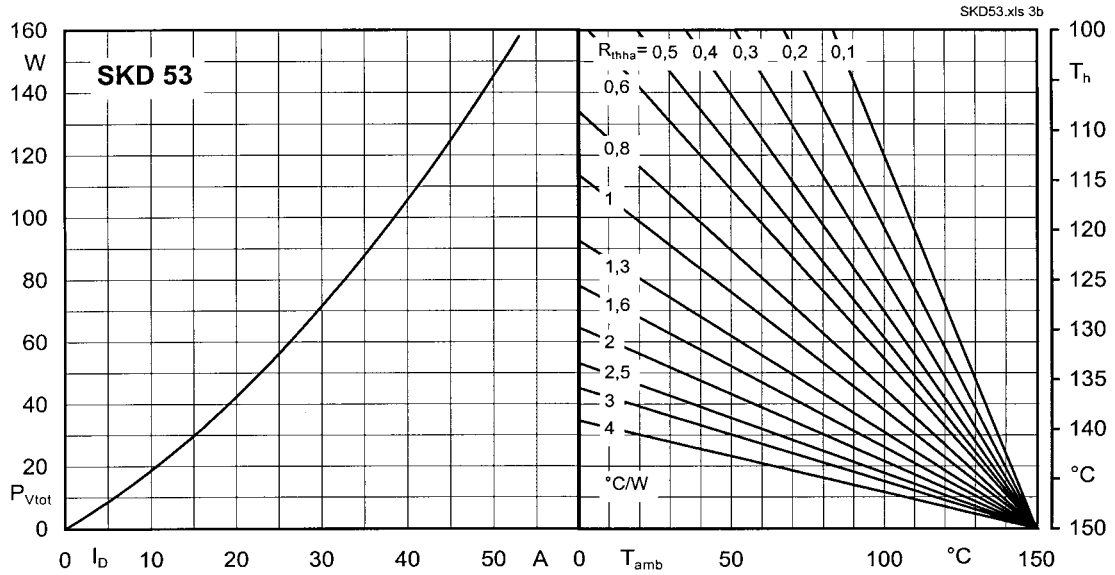


Fig. 3 b Power dissipation vs. output current and case temperature

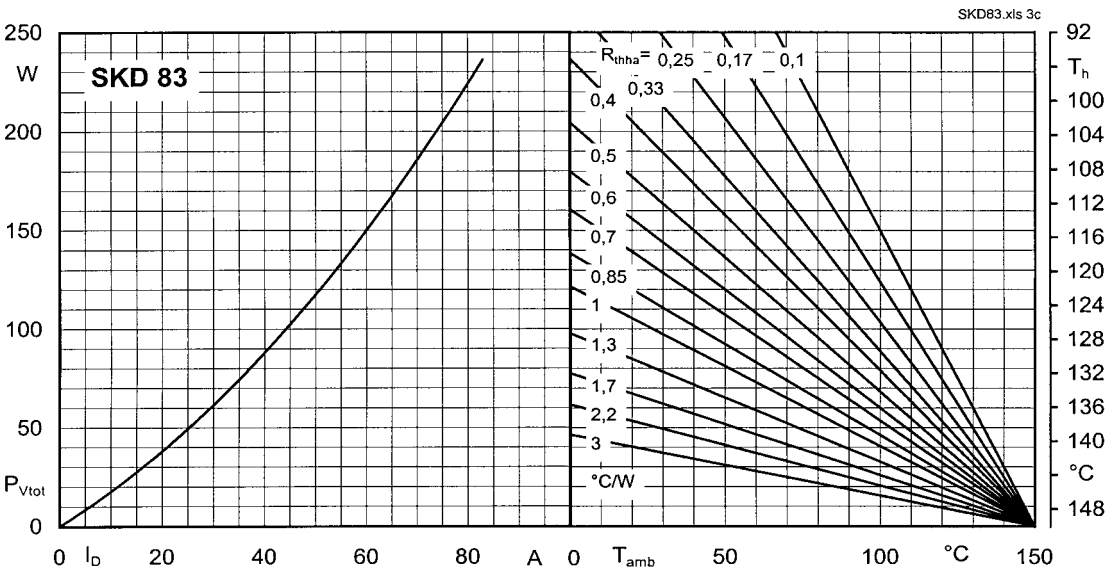
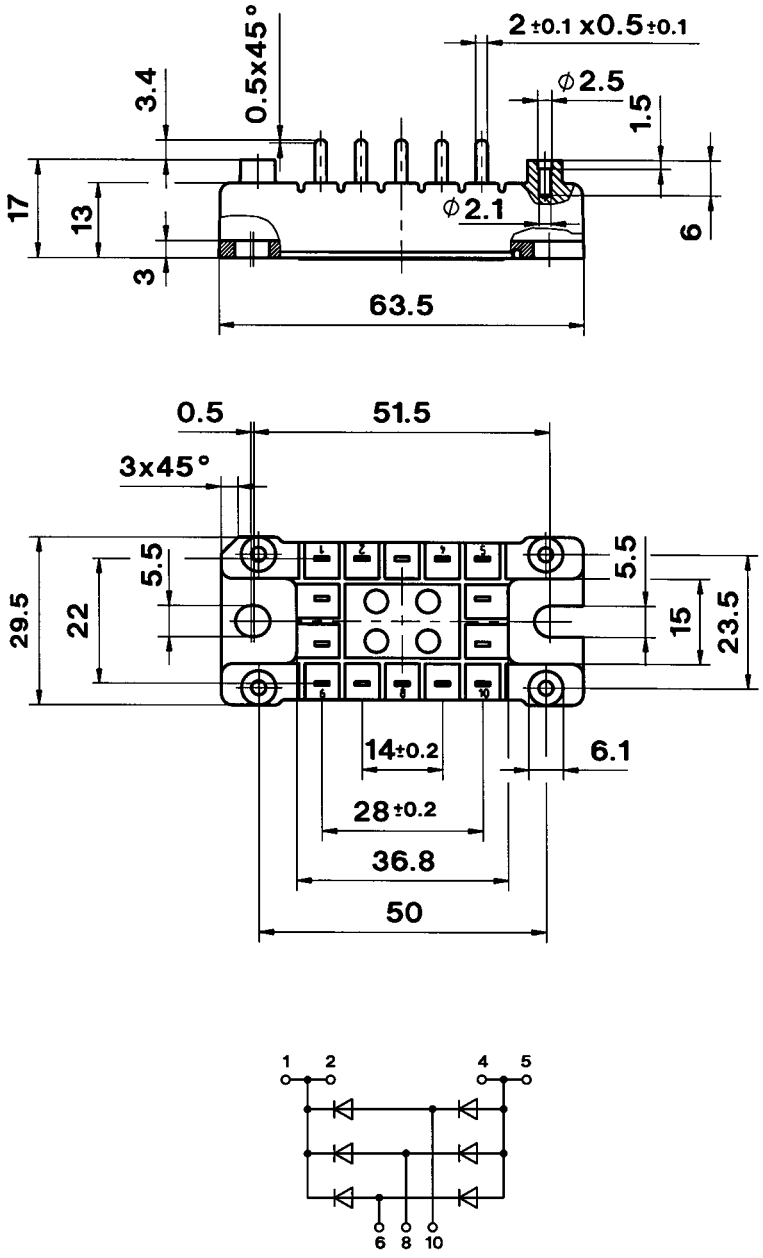


Fig. 3 c Power dissipation vs. output current and case temperature

SKD 33
SKD 53
SKD 83
Case G 55



Dimensions in mm