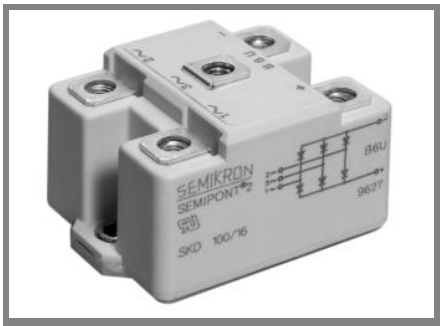
SKD 100



SEMIPONT® 2

Power Bridge Rectifiers

SKD 100

Features

- Robust plastic case with screw terminals
- Large, isolated base plate
- Blocking voltage to 1600 V
- High surge currents
- Three phase bridge rectifier
- Easy chassis mounting
- UL recognized, file no. E 63 532

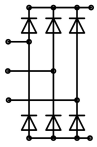
Typical Applications*

- 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: $Rh_{th(c-a)}$ = 1,8 K/W

V_{RSM} V	V_{RRM}, V_{DRM} V	I_D = 100 A (full conduction) (T_c = 93 °C)
400	400	SKD 100/04
800	800	SKD 100/08
1200	1200	SKD 100/12
1400	1400	SKD 100/14
1600	1600	SKD 100/16

Symbol	Conditions	Values	Units
I_D	T_c = 85 °C	110	A
	inductive load		A
	T_a = 45 °C, chassis 1)	24	A
	T_a = 45 °C; P13A/125 (P1A/120)	28 (54)	A
	T_a = 35 °C, P1A/120F (P1A/200F)	100 (120)	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	1150	A
	T_{vj} = 125 °C; 10 ms	1000	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	6600	A^2s
	T_{vj} = 125 °C; 8,3 ... 10 ms	5000	A^2s
V_F	T_{vj} = 25 °C; I_F = 150 A	max. 1,35	V
$V_{(TO)}$	T_{vj} = 125 °C	max. 0,85	V
r_T	T_{vj} = 125 °C	max. 5	mΩ
I_{RD}	T_{vj} = 25 °C; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}	max. 0,5	mA
	T_{vj} = 125 °C, V_{RD} = V_{RRM}	2	mA
$R_{th(j-c)}$	per diode	0,85	K/W
	total	0,14	K/W
$R_{th(c-s)}$	total	0,05	K/W
T_{vj}		- 40 ... + 125	°C
T_{stg}		- 40 ... + 125	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 (3000)	V
M_s	to heatsink	5 ± 15 %	Nm
M_t	to terminals	5 ± 15 %	Nm
m		165	g
Case		G 18	



SKD

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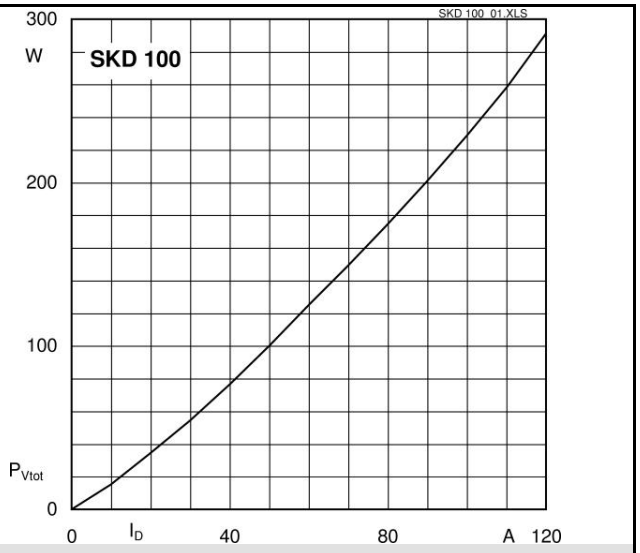


Fig. 3L Power dissipation vs. output current

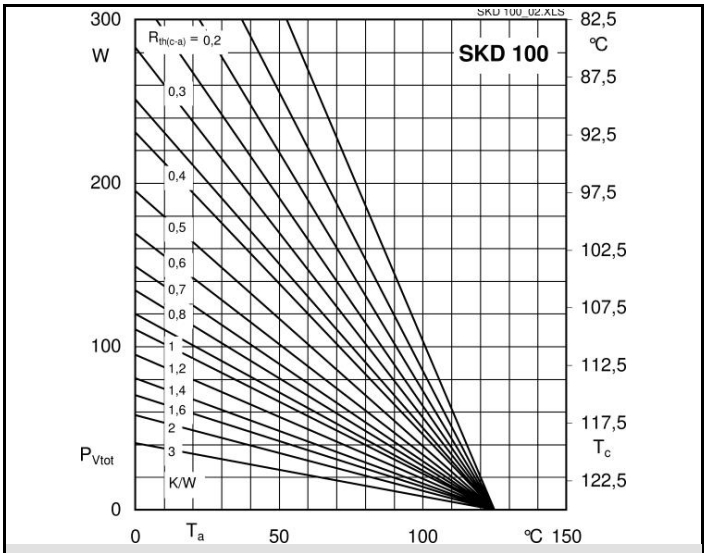


Fig. 3R Power dissipation vs. case temperature

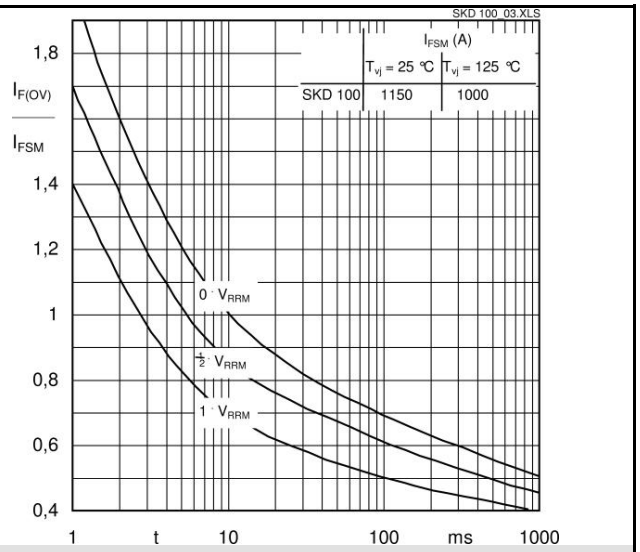


Fig. 6 Surge overload characteristics vs. time

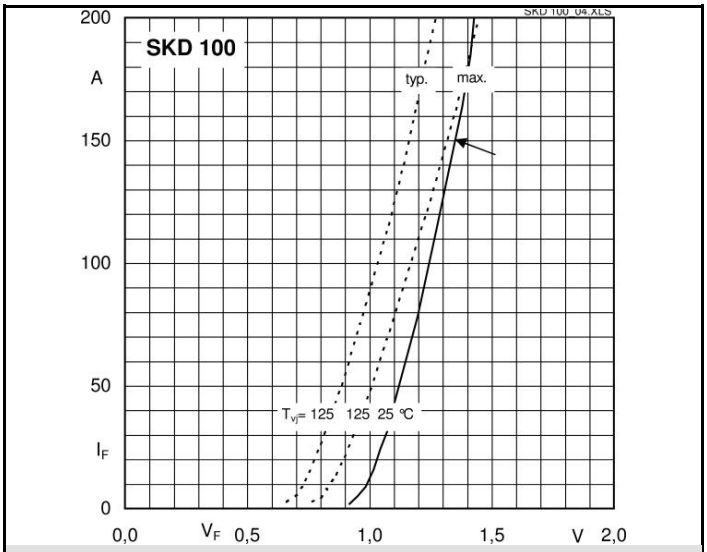


Fig. 9 Forward characteristics of a diode arm

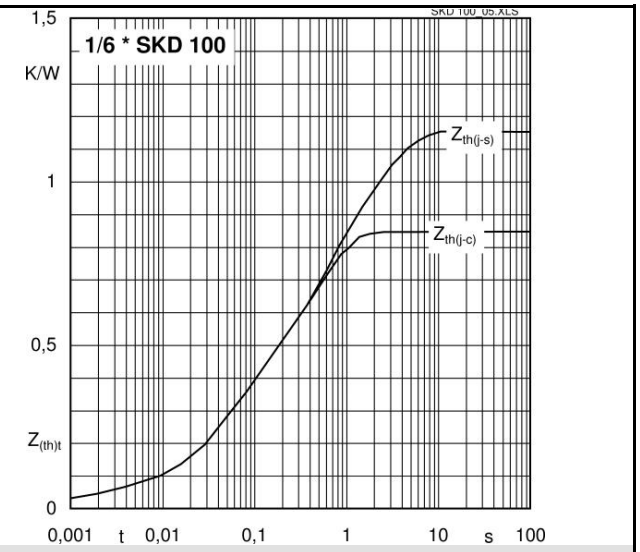
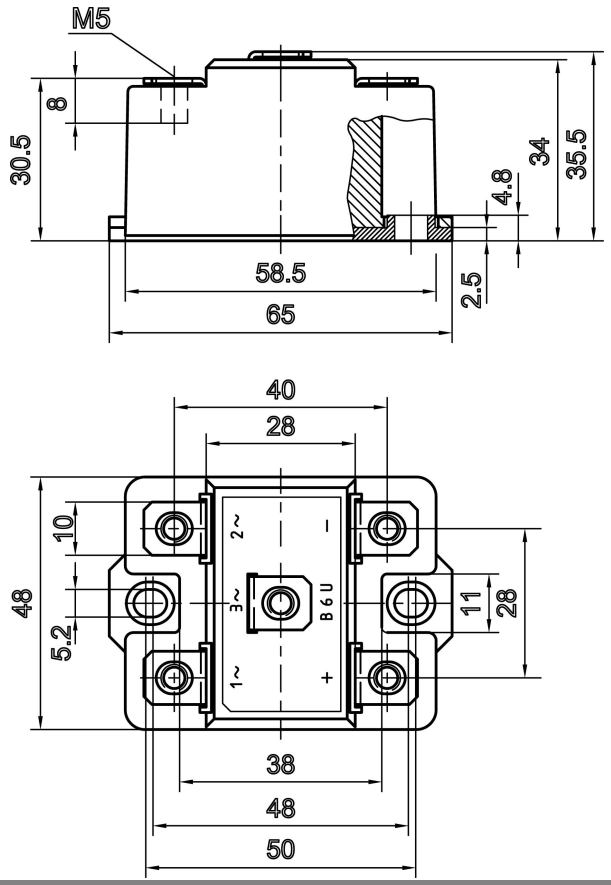


Fig. 12 Transient thermal impedance vs. time

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Dimensions in mm



Case G 18

* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.

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