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

V_{RSM}	V_{RRM}, V_{DRM}	I_D = 100 A (full conduction)
V	V	(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
i²t	T_{vj} = 25 °C; 8,3 ... 10 ms	6600	A²s
	T_{vj} = 125 °C; 8,3 ... 10 ms	5000	A²s
V_F	T_{vj} = 25 °C; I_F = 150 A	max. 1,35	V
$V_{(TO)}$	T_{vj} = 125 °C	0,85	V
r_T	T_{vj} = 125 °C	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	

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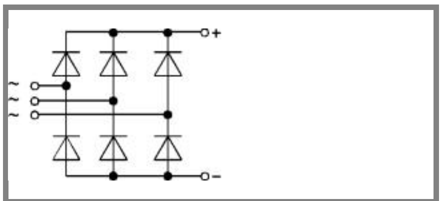
[1] Painted metal sheet of minimum 250 x 250 x 1 mm: $Rh_{th(c-a)}$ = 1,8 K/W



SKD

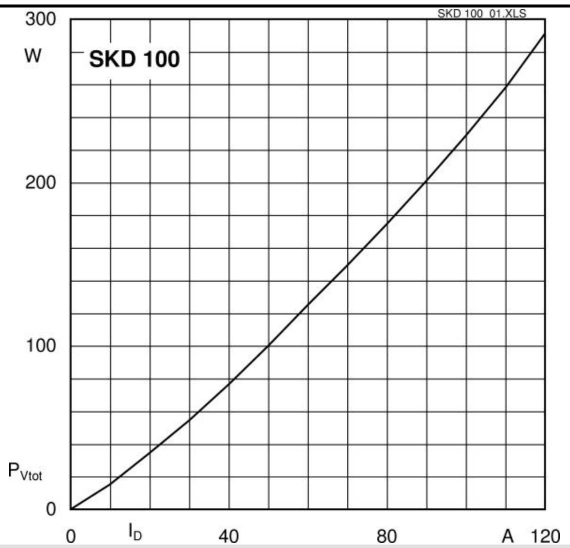


Fig. 3L Power dissipation vs. output current

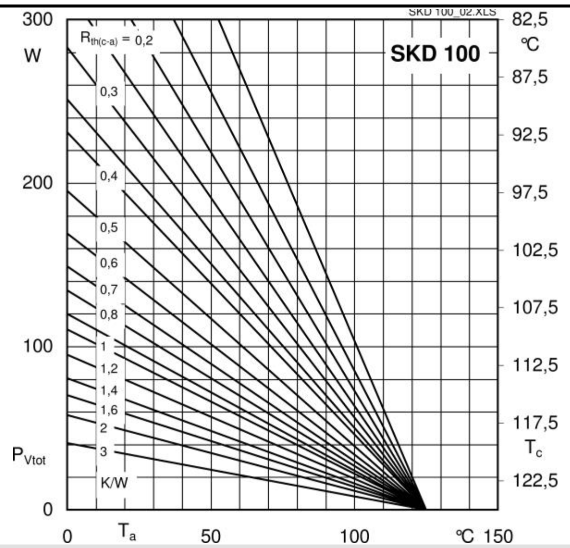


Fig. 3R Power dissipation vs. case temperature

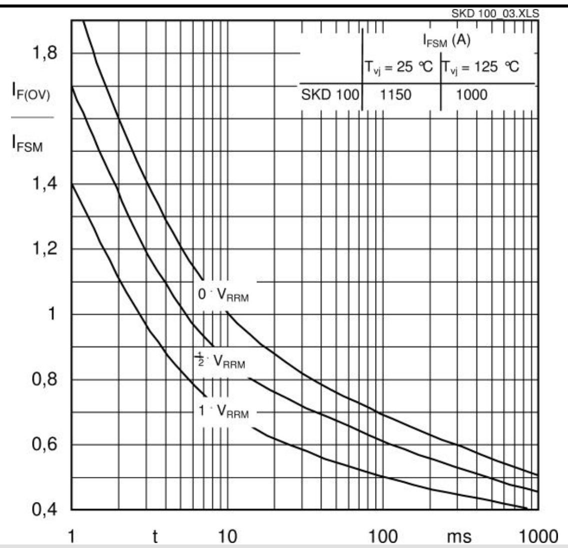


Fig. 6 Surge overload characteristics vs. time

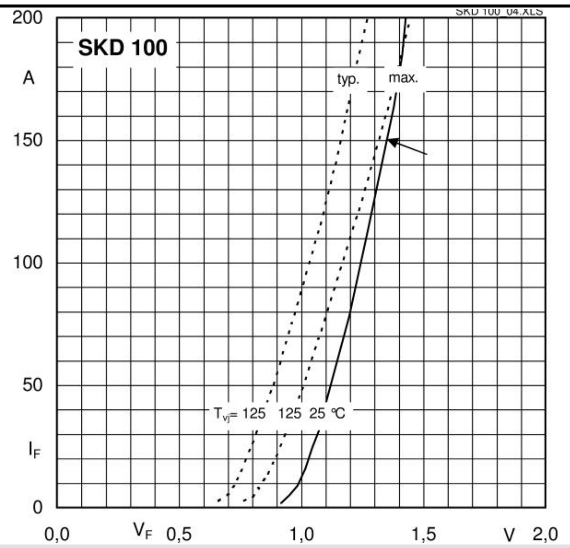


Fig. 9 Forward characteristics of a diode arm

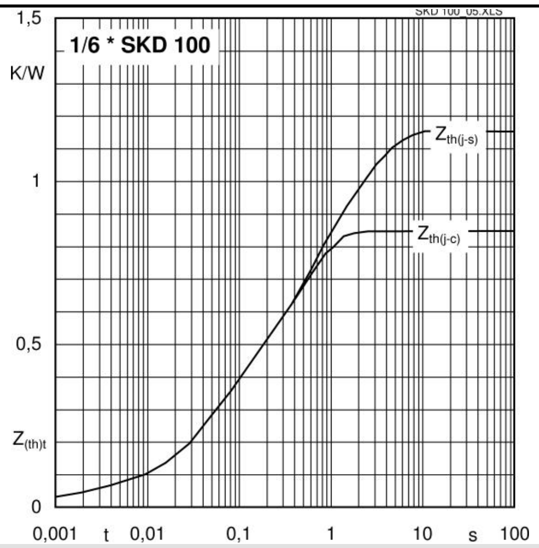
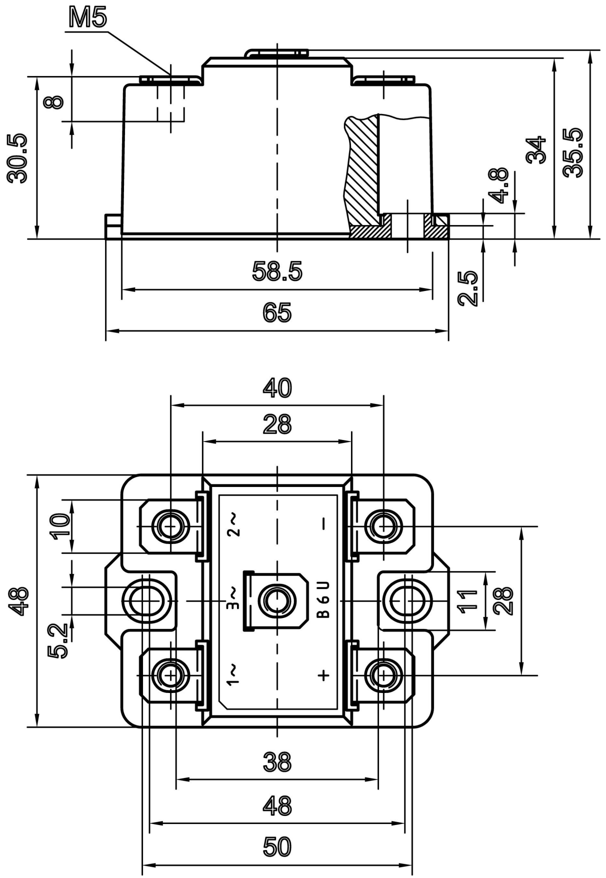


Fig. 12 Transient thermal impedance vs. time

Dimensions in mm



Case G 18