



## 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

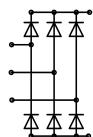
#### Typical Applications

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

$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_D = 100 \text{ A}$ (full conduction) ( $T_c = 93 \text{ }^\circ\text{C}$ )
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
$I_D$	$T_c = 85 \text{ }^\circ\text{C}$	110	A
	inductive load		A
	$T_a = 45 \text{ }^\circ\text{C}$ , chassis 1)	24	A
	$T_a = 45 \text{ }^\circ\text{C}$ ; P13A/125 (P1A/120)	28 (54)	A
	$T_a = 35 \text{ }^\circ\text{C}$ , P1A/120F (P1A/200F)	100 (120)	A
$I_{FSM}$	$T_{vj} = 25 \text{ }^\circ\text{C}$ ; 10 ms	1150	A
$i^2t$	$T_{vj} = 125 \text{ }^\circ\text{C}$ ; 10 ms	1000	A
	$T_{vj} = 25 \text{ }^\circ\text{C}$ ; 8,3 ... 10 ms	6600	A <sup>2</sup> s
	$T_{vj} = 125 \text{ }^\circ\text{C}$ ; 8,3 ... 10 ms	5000	A <sup>2</sup> s
$V_F$	$T_{vj} = 25 \text{ }^\circ\text{C}$ ; $I_F = 150 \text{ A}$	max. 1,35	V
$V_{(TO)}$	$T_{vj} = 125 \text{ }^\circ\text{C}$	max. 0,85	V
$r_T$	$T_{vj} = 125 \text{ }^\circ\text{C}$	max. 5	mΩ
$I_{RD}$	$T_{vj} = 25 \text{ }^\circ\text{C}$ ; $V_{DD} = V_{DRM}$ ; $V_{RD} = V_{RRM}$	max. 0,5	mA
	$T_{vj} = 125 \text{ }^\circ\text{C}$ ; $V_{RD} = V_{RRM}$	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	$^\circ\text{C}$
$T_{stg}$		- 40 ... + 125	$^\circ\text{C}$
$V_{isol}$	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

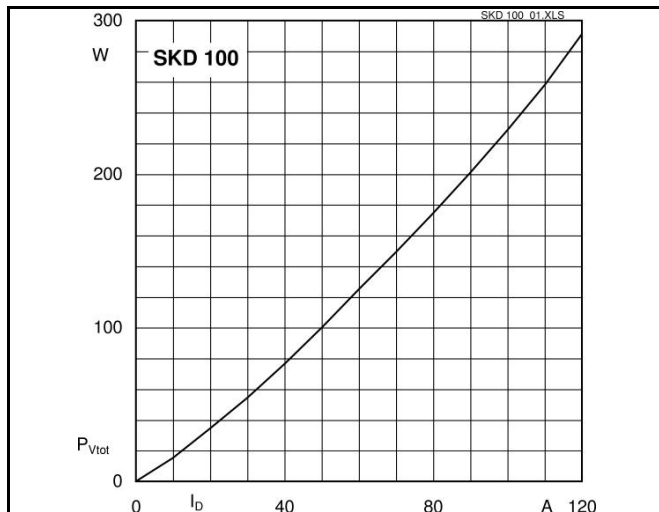


Fig. 3L Power dissipation vs. output current

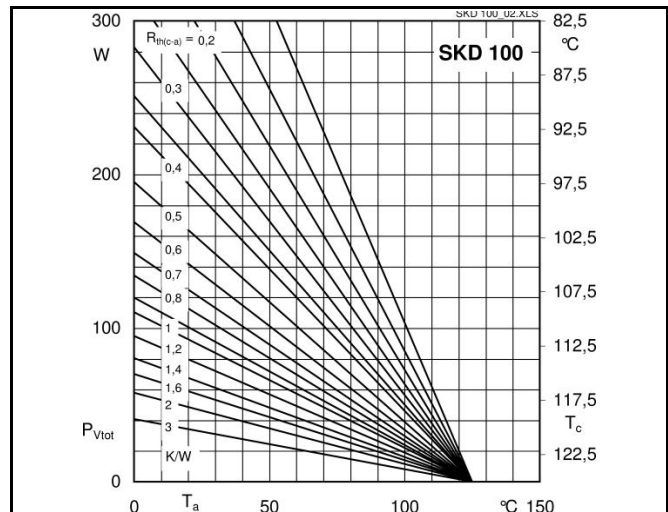


Fig. 3R Power dissipation vs. case temperature

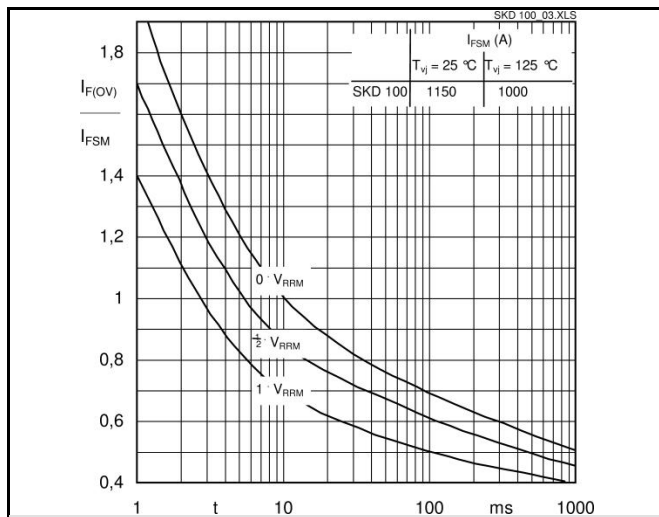


Fig. 6 Surge overload characteristics vs. time

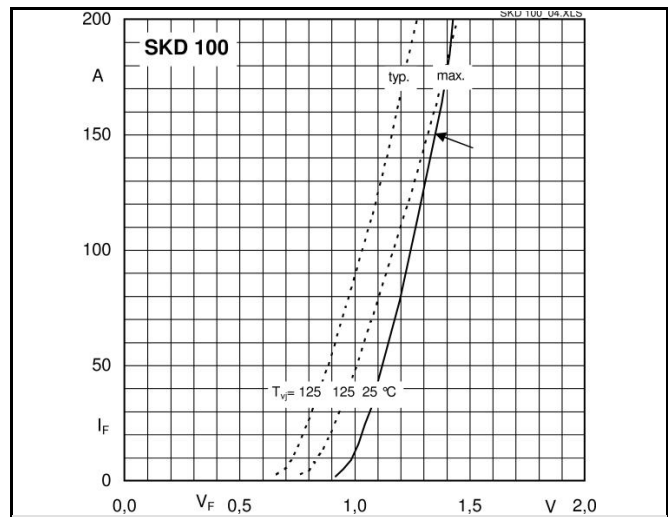


Fig. 9 Forward characteristics of a diode arm

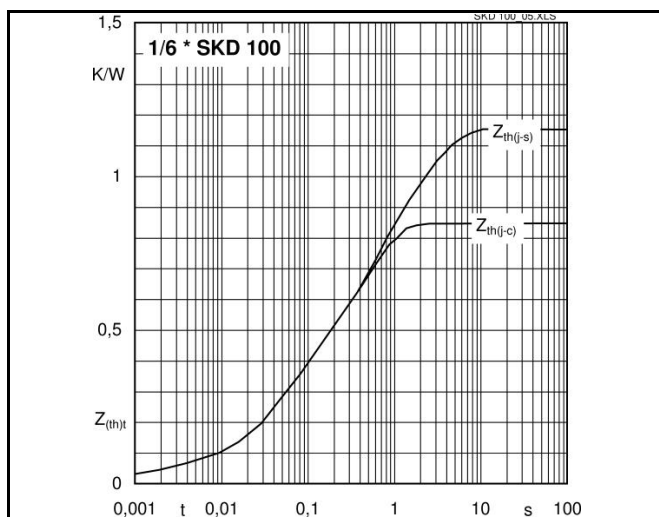
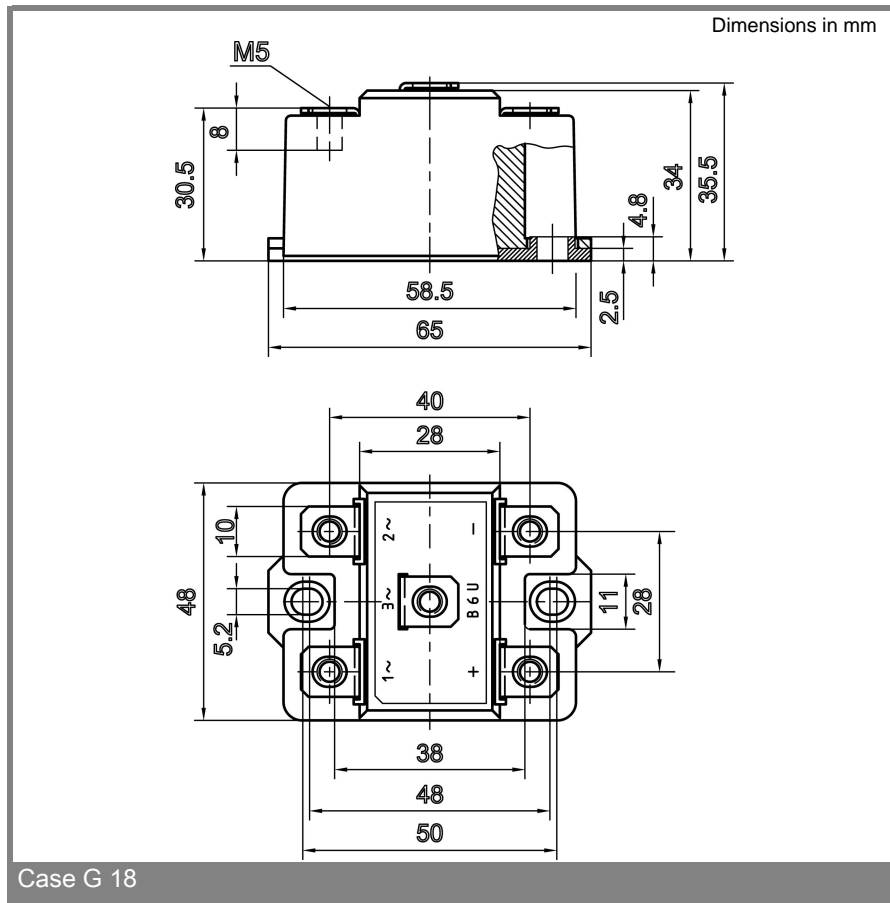


Fig. 12 Transient thermal impedance vs. time



This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.