SKD 60

SEMIPONT® 2

Power Bridge Rectifiers

SKD 60

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 = 60 A (full conduction) (T_c = 102 °C)
400	400	SKD 60/04
800	800	SKD 60/08
1200	1200	SKD 60/12
1400	1400	SKD 60/14
1600	1600	SKD 60/16

| Symbol	Conditions	Values	Units
I_D	T_c = 85 °C	92	A
	inductive load		A
	T_a = 45 °C, chassis [1]	21	A
	T_a = 45 °C; P13A/125 (R4A/120)	27 (30)	A
	T_a = 35 °C, P1A/120F (P1A/200F)	85 (112)	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	1000	A
	T_{vj} = 125 °C; 10 ms	850	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	5000	A²s
	T_{vj} = 125 °C; 8,3 ... 10 ms	3600	A²s
V_F	T_{vj} = 25 °C; I_F = 150 A	max. 1,6	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	1	K/W
	total	0,167	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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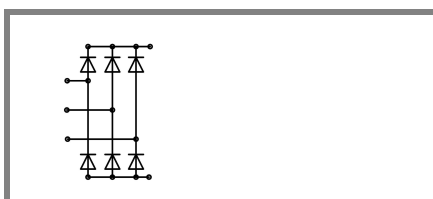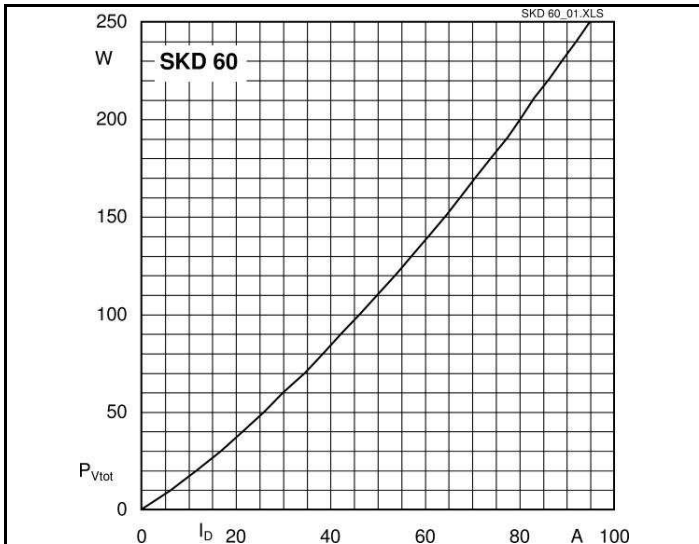
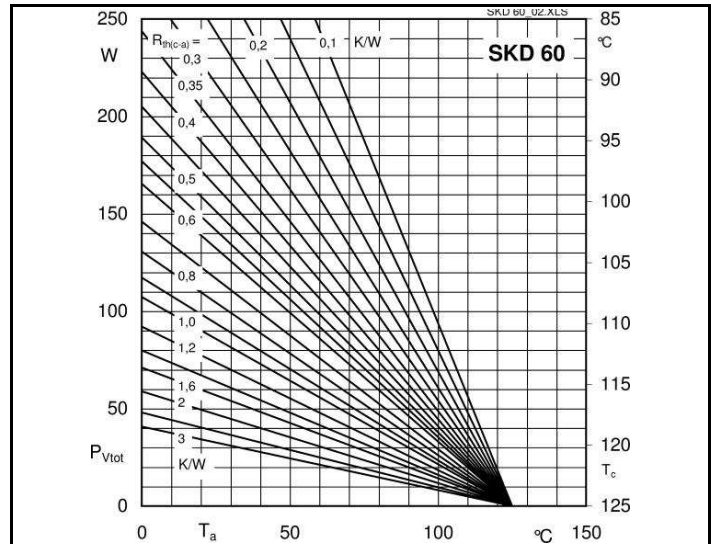Fig. 3L Power dissipation vs. output current

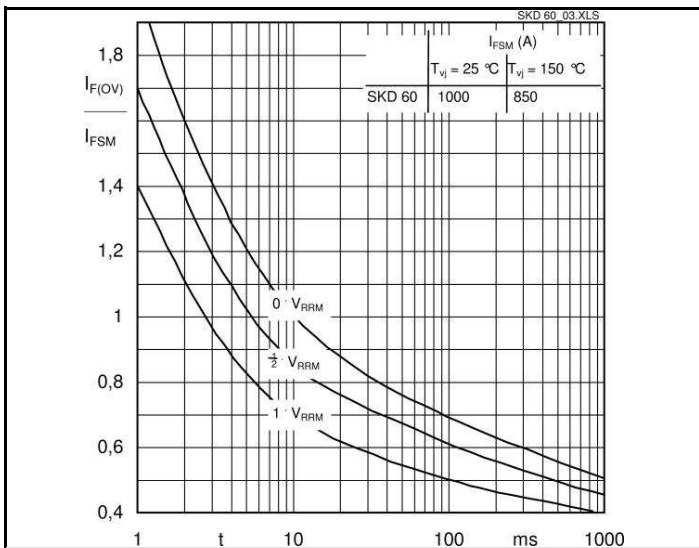Fig. 3R Power dissipation vs. case temperature
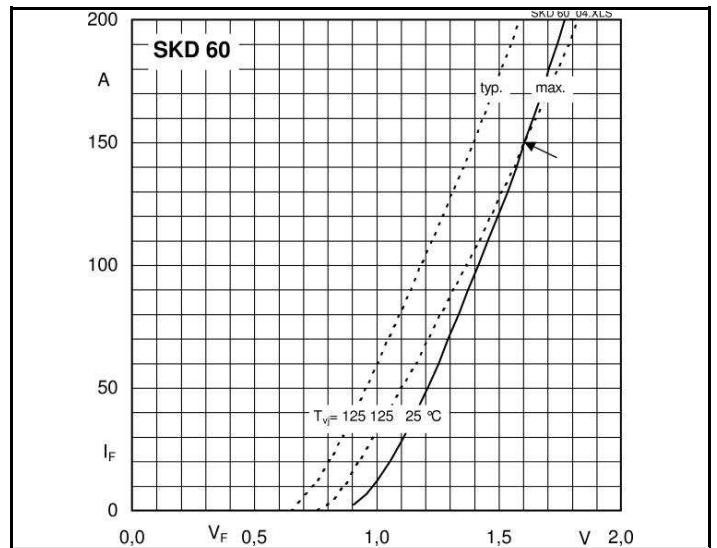

Fig. 6 Surge overload characteristics vs. time
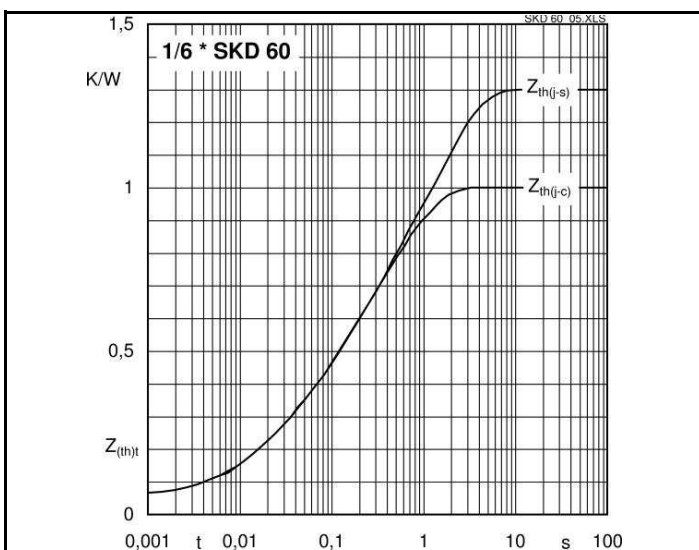

Fig. 9 Forward characteristics of a diode arm

Fig. 12 Transient thermal impedance vs. time

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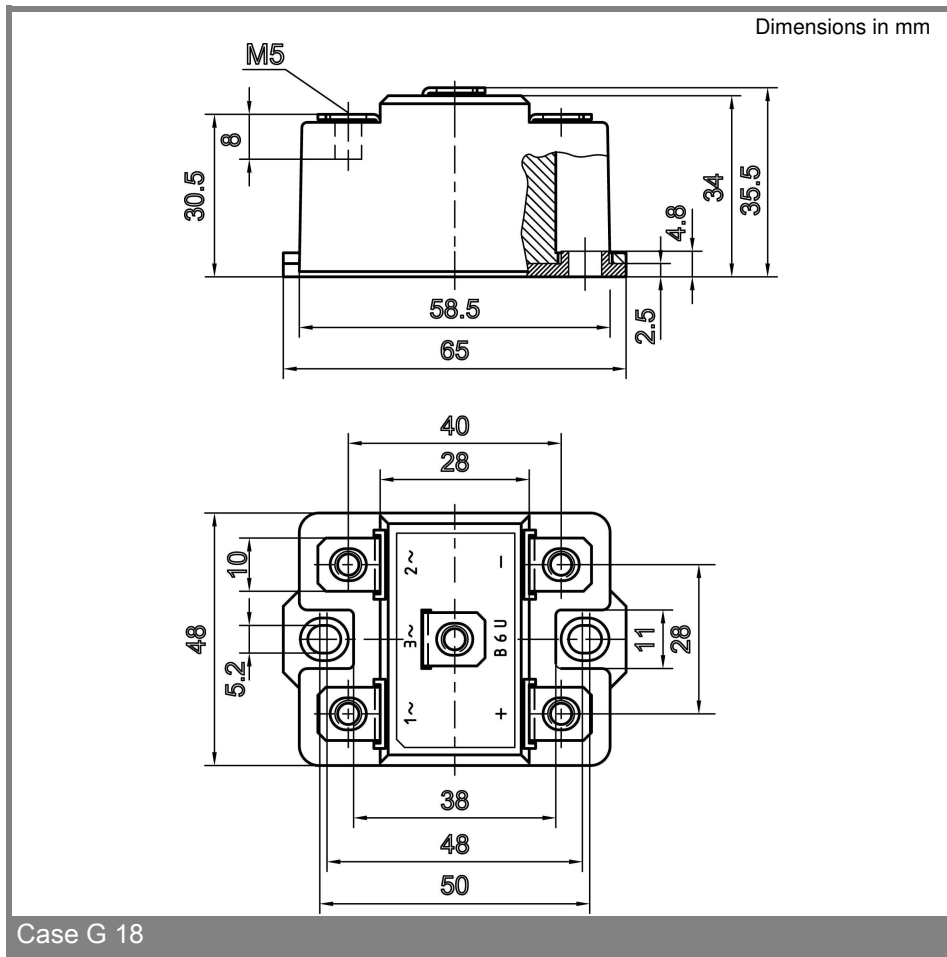Dimensions in mm

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.