SKB 72



SEMIPONT® 3

Power Bridge Rectifiers

SKB 72

Features

- Robust plastic case with screw terminals
- Large, isolated base plate
- Blocking voltage up to 1800 V
- High surge currents
- Single phase bridge rectifier
- Easy chassis mounting
- UL recognized, file no. E 63 532

Typical Applications

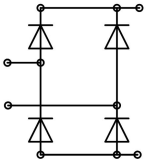
- Single phase rectifiers for power supplies
- Input rectifiers for variable frequency drives
- Rectifiers for DC motor field supplies
- Battery charger rectifiers

1) Freely suspended or mounted on an isolator

2) Mounted on a painted metal sheet of min. 250 x 250 x 1 mm; $R_{th(s-a)}$ = 1,8 K/W

V_{RSM} V	V_{RRM}, V_{DRM} V	I_D = 70 A (full conduction) (T_c = 101 °C)
400	400	SKB 72/04
800	800	SKB 72/08
1200	1200	SKB 72/12
1400	1400	SKB 72/14
1600	1600	SKB 72/16
1800	1800	SKB 72/18

Symbol	Conditions	Values	Units
I_D	T_c = 85 °C resistive / inductive load	86	A
	T_a = 45 °C; isolated 1)	10	A
	T_a = 45 °C; chassis 2)	23,5	A
	T_a = 45 °C; P1A/120 (P1A/200)	48 (54)	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	750	A
	T_{vj} = 150 °C; 10 ms	640	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms ms	2800	A^2s
	T_{vj} = 150 °C; 8,3 ... 10 ms ms	2000	A^2s
V_F	T_{vj} = 25 °C; I_F = 150 A	max. 1,6	V
$V_{(TO)}$	T_{vj} = 150 °C	max. 0,85	V
r_T	T_{vj} = 150 °C	max. 5	mΩ
I_{RD}	T_{vj} = 25 °C; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}	max. 0,5	mA
	T_{vj} = 150 °C; V_{RD} = V_{RRM}	6	mA
$R_{th(j-c)}$	per diode	1,1	K/W
	total	0,275	K/W
$R_{th(c-s)}$	total	0,07	K/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
M_s	to heatsink	5 ± 15%	Nm
M_t	to terminals	5 ± 15%	Nm
m		165	g
Case		G 35	



SKB

 © by SEMIKRON

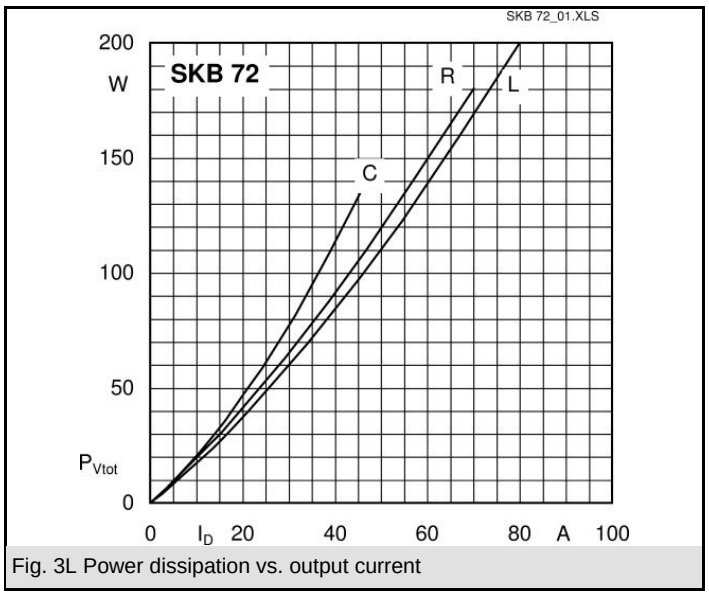


Fig. 3L Power dissipation vs. output current

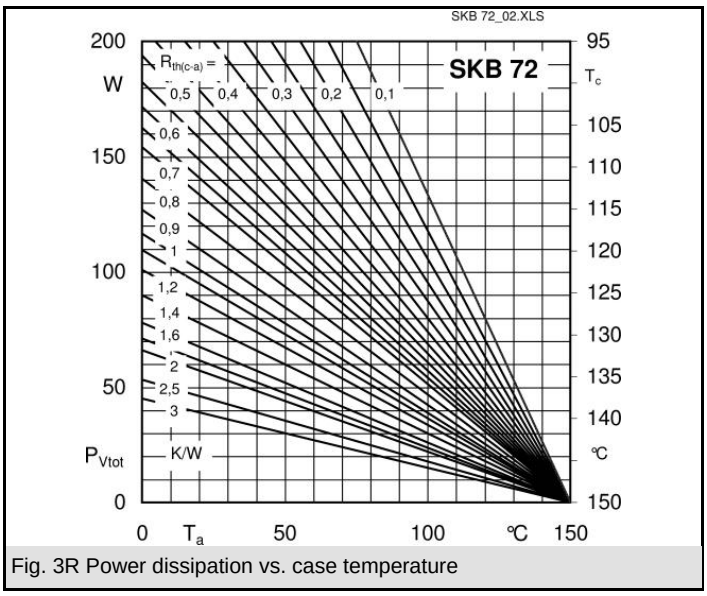


Fig. 3R Power dissipation vs. case temperature

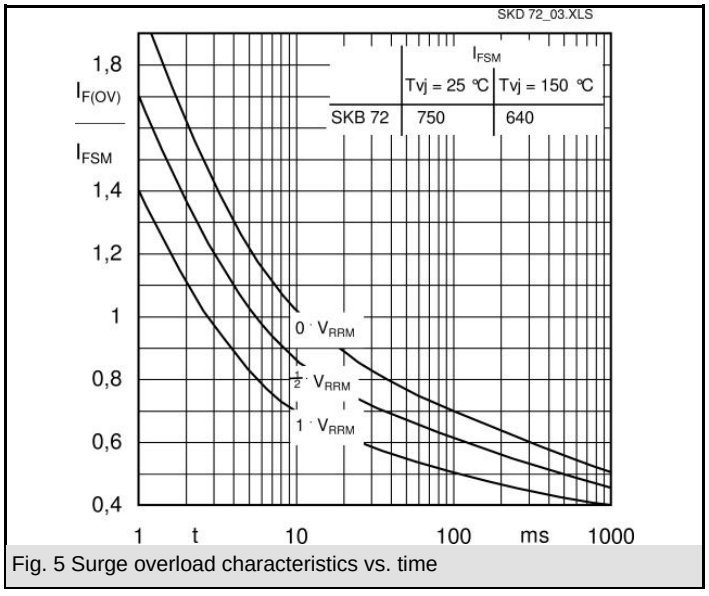


Fig. 5 Surge overload characteristics vs. time

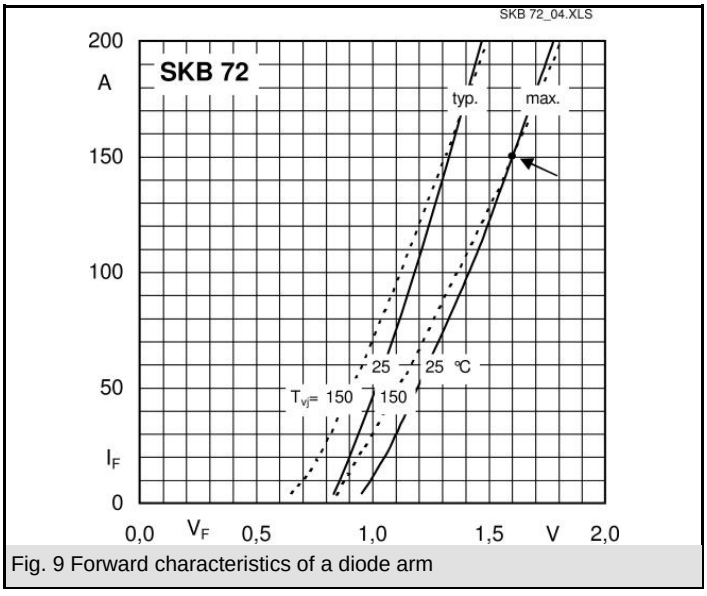


Fig. 9 Forward characteristics of a diode arm

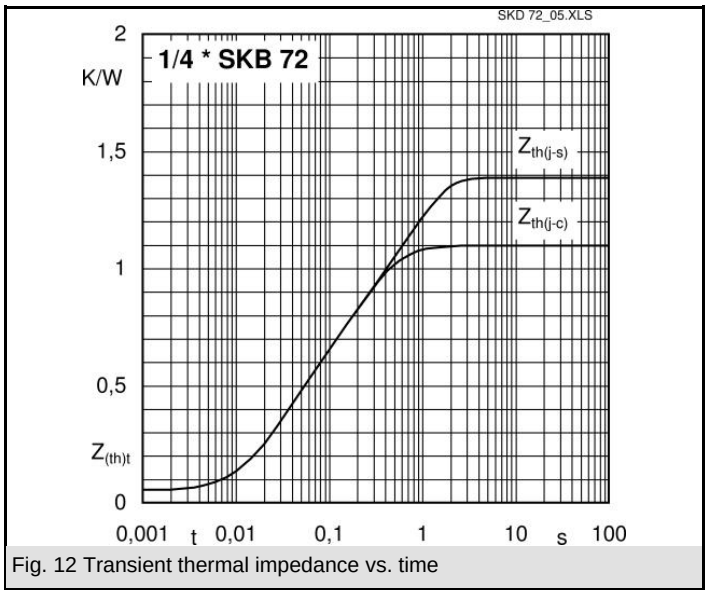
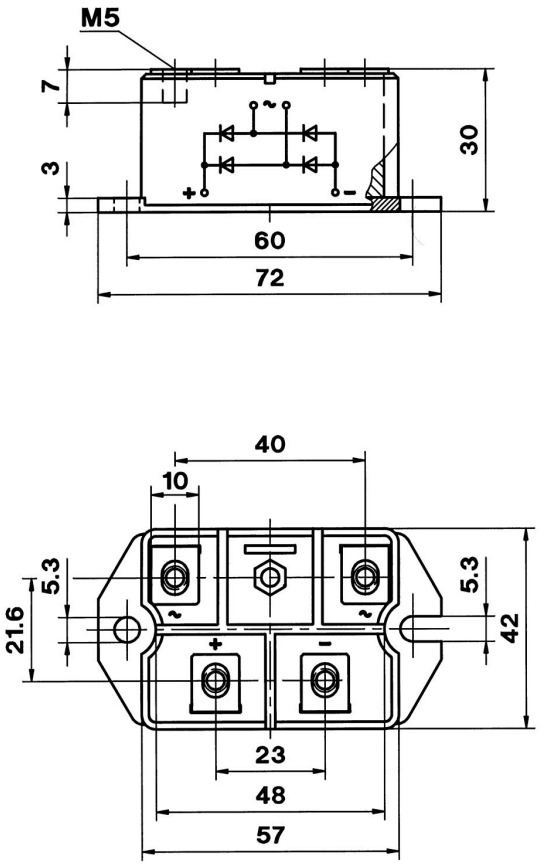


Fig. 12 Transient thermal impedance vs. time

 © by SEMIKRON

Dimensions in mm



Case G 35

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

 © by SEMIKRON