



## SEMIPONT® 4

### Power Bridge Rectifiers

#### SKD 210

#### Preliminary Data

#### Features

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

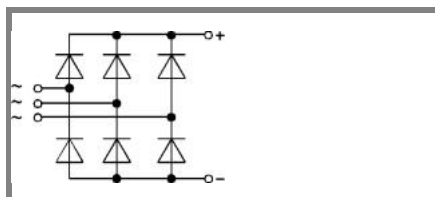
#### Typical Applications

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

1) Max. output current limited by the terminals: 220A rms

$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_D = 210$ A (full conduction) ( $T_c = 99$ °C)
900	800	SKD 210/08
1300	1200	SKD 210/12
1700	1600	SKD 210/16
1900	1800	SKD 210/18

Symbol	Conditions	Values	Units
$I_D$	$T_c = 100$ °C	207	A
$I_D$	$T_c = 95$ °C	220 <sup>1)</sup>	A
$I_{FSM}$	$T_{vj} = 25$ °C; 10 ms	2000	A
	$T_{vj} = 150$ °C; 10 ms	1600	A
$i^2t$	$T_{vj} = 25$ °C; 8,3 ... 10 ms	20000	A <sup>2</sup> s
	$T_{vj} = 150$ °C; 8,3 ... 10 ms	12800	A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C; $I_F = 300$ A	max. 1,65	V
$V_{(TO)}$	$T_{vj} = 150$ °C	max. 0,85	V
$r_T$	$T_{vj} = 150$ °C	max. 3	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	0,5	K/W
	total	0,083	K/W
$R_{th(c-s)}$	total	0,03	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		270	g
Case		G 37	



SKD

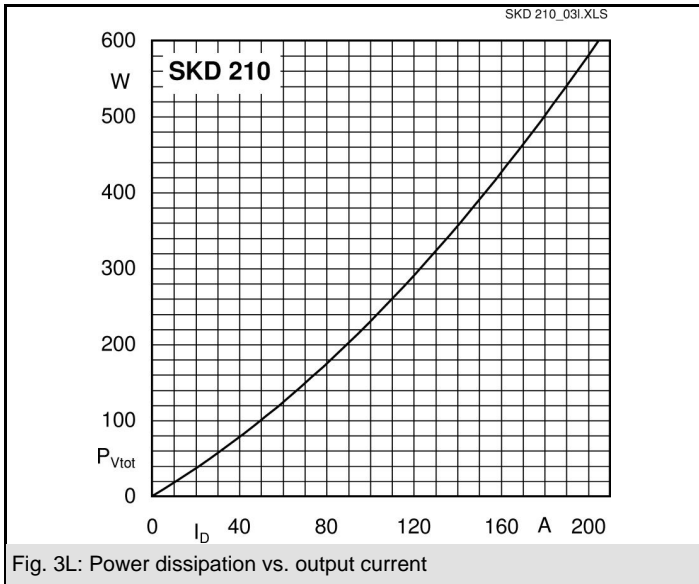


Fig. 3L: Power dissipation vs. output current

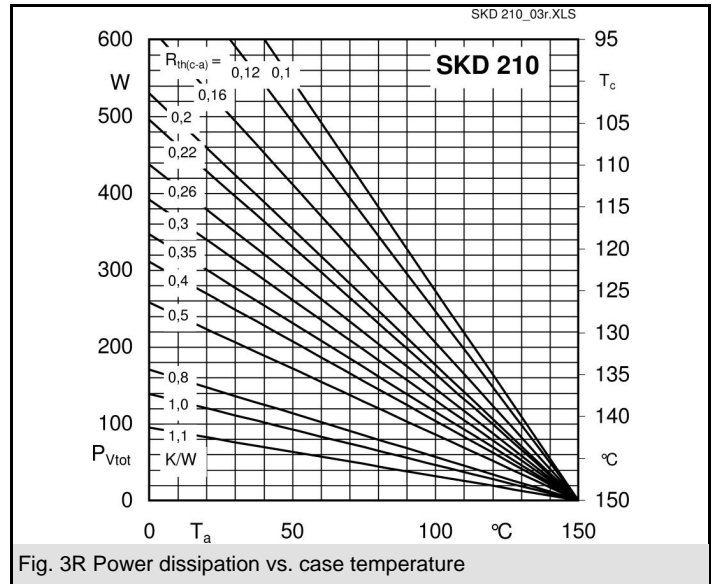


Fig. 3R: Power dissipation vs. case temperature

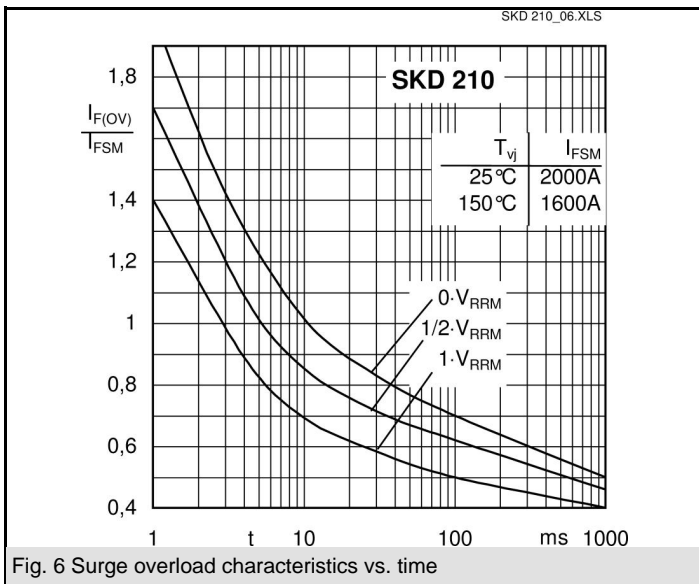


Fig. 6: Surge overload characteristics vs. time

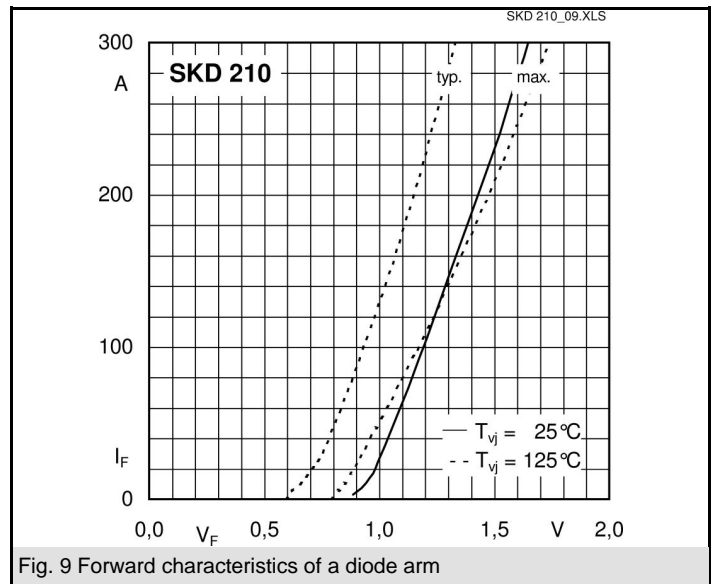


Fig. 9: Forward characteristics of a diode arm

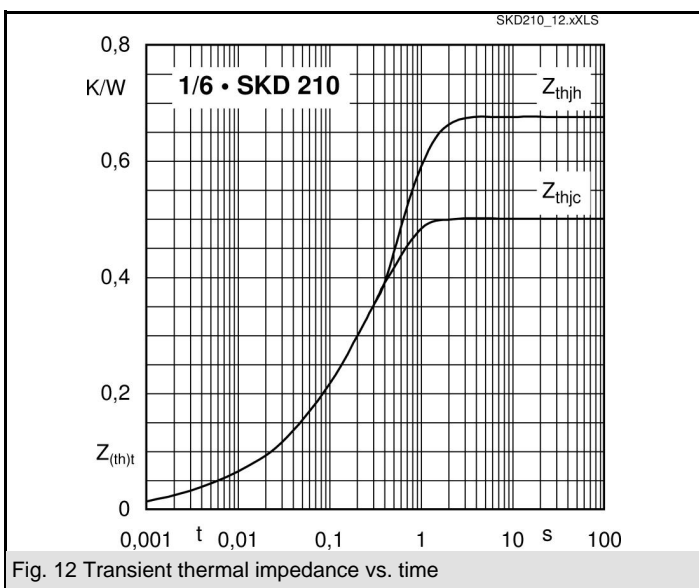
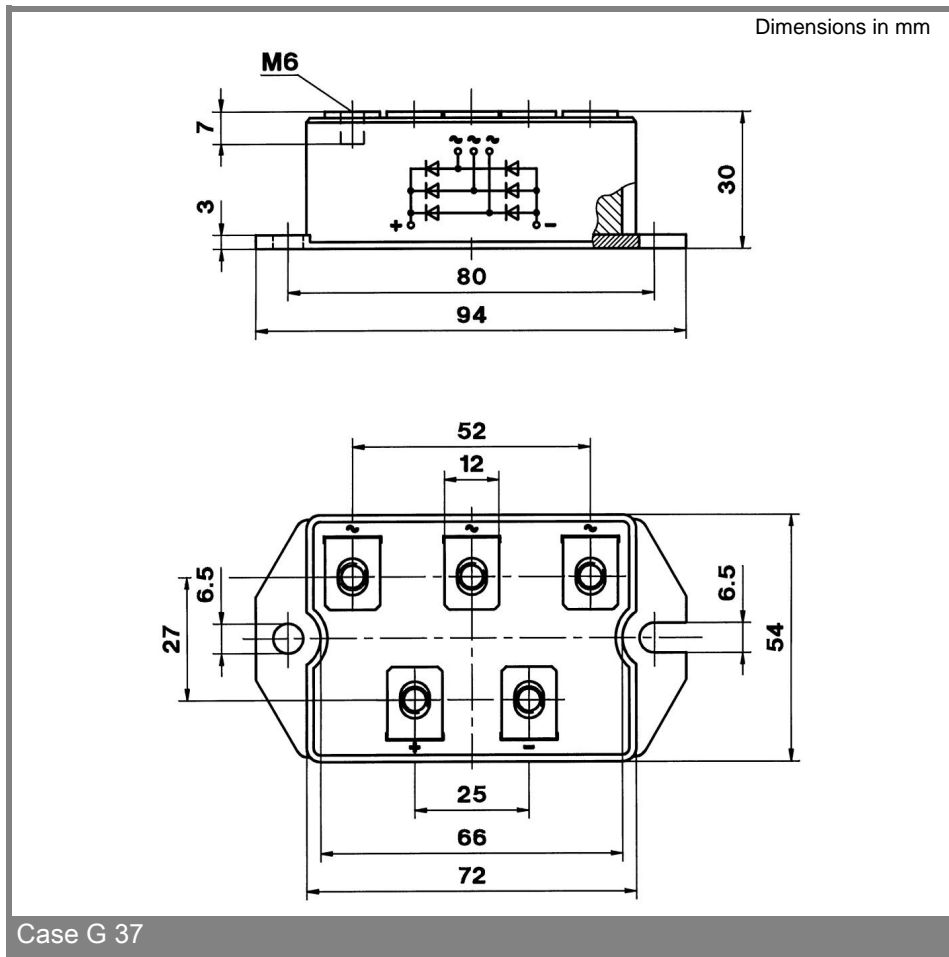


Fig. 12: Transient thermal impedance vs. time



Case G 37

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