SKD 160

SEMIPONT® 4

Power Bridge Rectifiers

SKD 160

Features

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

Typical Applications*

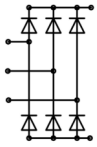
- Three phase rectifiers for power supplies
- Input rectifiers for variable frequency drives
- Rectifiers for DC motor field supplies
- Battery charger rectifiers

1) Available in limited quantities

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

V_{RSM} V	V_{RRM}, V_{DRM} V	I_D = 160 A (full conduction) (T_c = 100 °C)
800	800	SKD 160/08
1200	1200	SKD 160/12
1400	1400	SKD 160/14
1600	1600	SKD 160/16
1800	1800	SKD 160/18 1)

Symbol	Conditions	Values	Units
I_D	T_c = 85 °C	205	A
	T_a = 45 °C; chassis 2)	30	A
	T_a = 45 °C; P1/200	75	A
	T_a = 35 °C; P1/120F	145	A
	T_a = 35 °C; P3/120F	146	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	1800	A
	T_{vj} = 150 °C; 10 ms	1500	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	16200	A^2s
	T_{vj} = 150 °C; 8,3 ... 10 ms	11200	A^2s
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	0,65	K/W
	total	0,11	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

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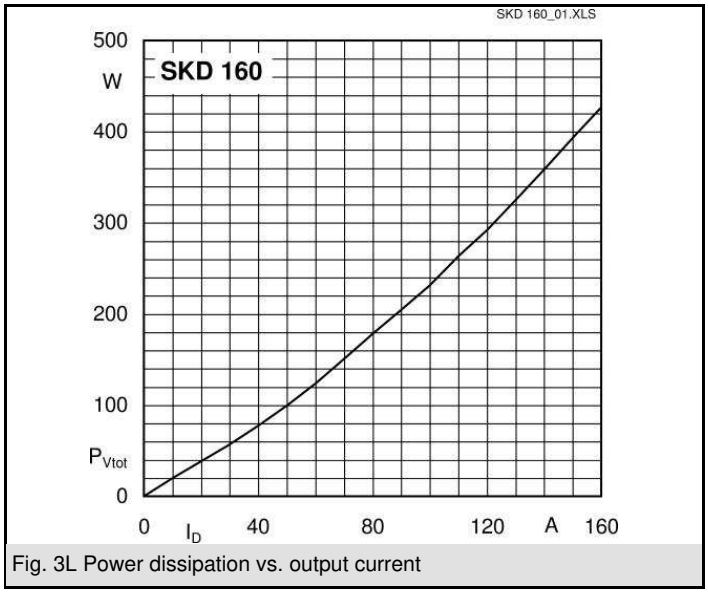

Fig. 3L Power dissipation vs. output current

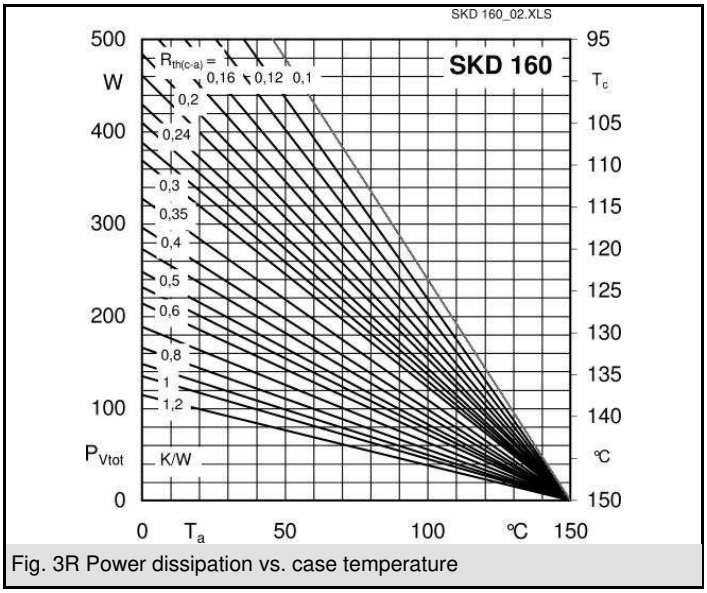

Fig. 3R Power dissipation vs. case temperature

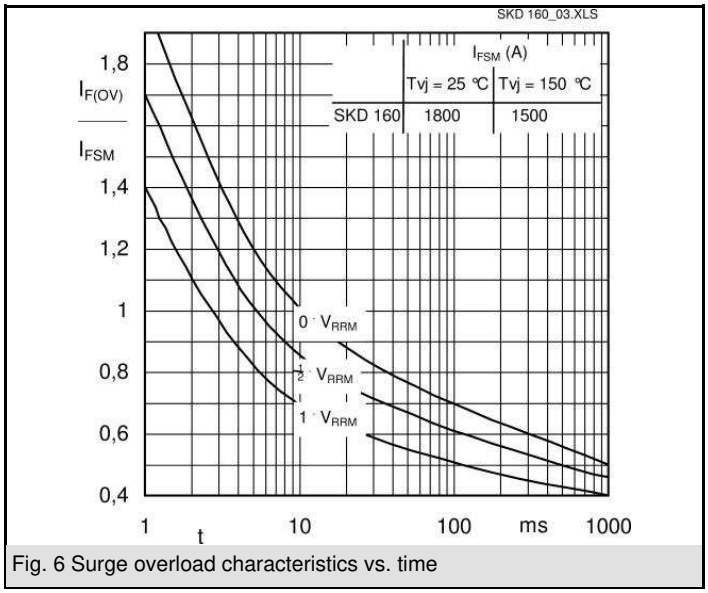

Fig. 6 Surge overload characteristics vs. time

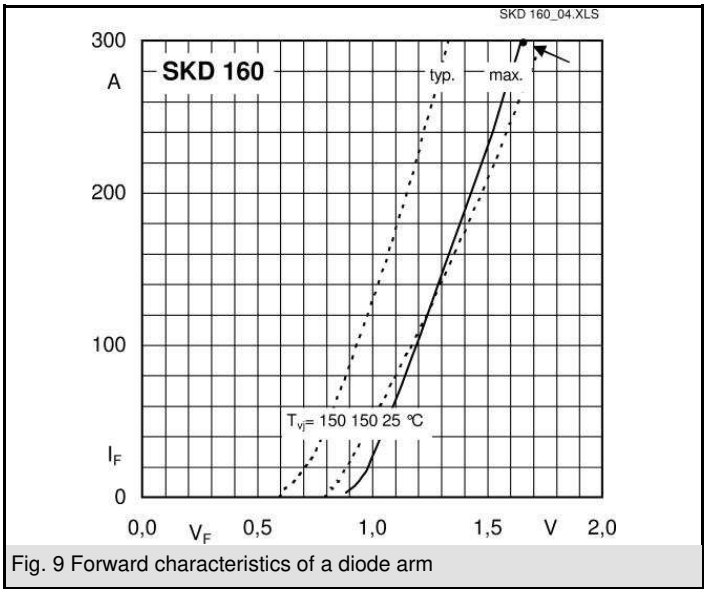

Fig. 9 Forward characteristics of a diode arm

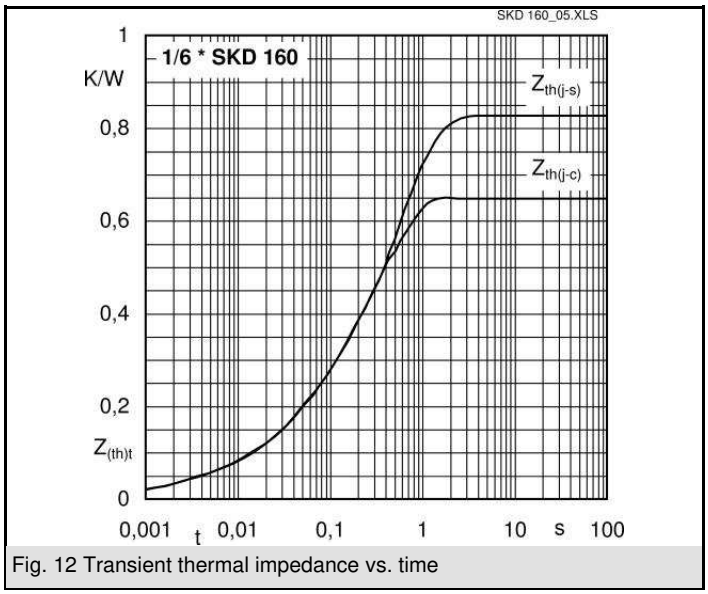

Fig. 12 Transient thermal impedance vs. time

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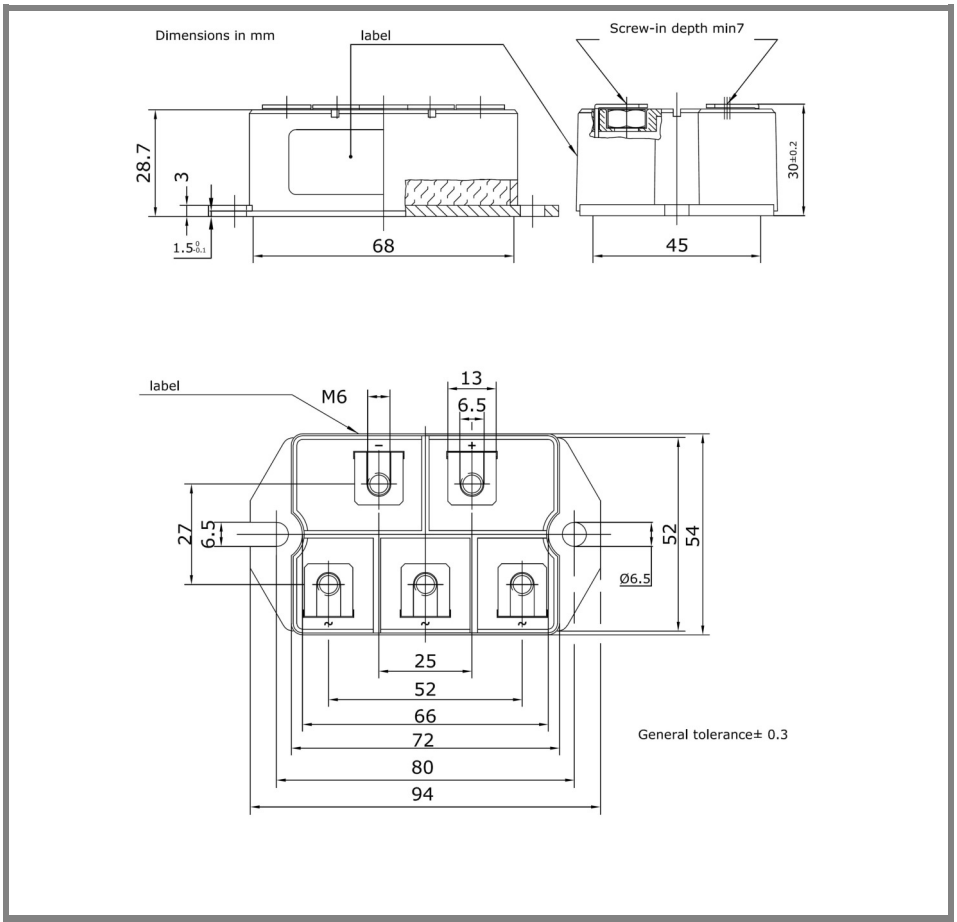

Case G 37

This is an electrostatic discharge sensitive device (ESDS) due to international standard IEC 61340.

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