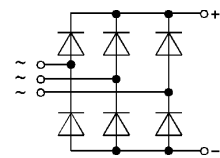


**SEMIPONT® 4**  
**Power Bridge Rectifiers**

**SKD 110**  
**SKD 160**



**SKD**

**Features**

- Robust plastic case with screw terminals
- Large, isolated base plate
- Blocking voltage to 1800 V
- High surge currents
- 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

V <sub>RSM</sub> V <sub>RRM</sub>	I <sub>D</sub> (T <sub>case</sub> = 100 °C)	
	110 A	160 A
200 V	<b>SKD 110/02</b>	<b>SKD 160/02</b>
400 V	<b>SKD 110/04</b>	<b>SKD 160/04</b>
800 V	<b>SKD 110/08</b>	<b>SKD 160/08</b>
1200 V	<b>SKD 110/12</b>	<b>SKD 160/12</b>
1400 V	<b>SKD 110/14</b>	<b>SKD 160/14</b>
1600 V	<b>SKD 110/16</b>	<b>SKD 160/16</b>
1800 V	<b>SKD 110/18*</b>	<b>SKD 160/18*</b>

Symbol	Conditions	SKD 110	SKD 160	Units
I <sub>D</sub>	T <sub>case</sub> = 100 °C	110	160	A
	T <sub>amb</sub> = 45 °C, chassis <sup>1)</sup> P1/200	28	30	A
		70	75	A
	T <sub>amb</sub> = 35 °C, P1/120 F P3/120 F	110	145	A
123		146	A	
I <sub>FSM</sub>	T <sub>vj</sub> = 25 °C, 10 ms	1200	1800	A
	T <sub>vj</sub> = 150 °C, 10 ms	1000	1500	A
i <sup>2</sup> t	T <sub>vj</sub> = 25 °C, 8,3...10 ms	7200	16 200	A <sup>2</sup> s
	T <sub>vj</sub> = 150 °C, 8,3...10 ms	5000	11 200	A <sup>2</sup> s
V <sub>F</sub>	T <sub>vj</sub> = 25 °C; I <sub>F</sub> = 300 A	1,9	1,65	V
V <sub>(TO)</sub>	T <sub>vj</sub> = 150 °C	0,85	0,85	V
r <sub>T</sub>	T <sub>vj</sub> = 150 °C	4	3	mΩ
I <sub>RD</sub>	T <sub>vj</sub> = 25 °C; V <sub>RD</sub> = V <sub>RRM</sub>	0,5	0,5	mA
	T <sub>vj</sub> = 150 °C; V <sub>RD</sub> = V <sub>RRM</sub>	5	6	mA
R <sub>thjc</sub>	per diode	0,9	0,65	°C/W
	total	0,15	0,11	°C/W
R <sub>thch</sub>	total	0,03		°C/W
T <sub>vj</sub>		- 40 ... + 150		°C
T <sub>stg</sub>		- 40 ... + 125		°C
V <sub>isol</sub>	a.c. 50...60 Hz; r.m.s.; 1 s / 1 min	3600 / 3000		V~
M <sub>1</sub>	to heatsink	SI units	5 ± 15 %	Nm
		US units	44 ± 15 %	lb. in.
M <sub>2</sub>	to terminals	SI units	5 ± 15 %	Nm
		US units	44 ± 15 %	lb. in.
w		270		g
Case		G 37		

\* Available in limited quantities

<sup>1)</sup> Painted metal sheet of minimum 250 x 250 x 1 mm: R<sub>thca</sub> = 1,8 °C/W

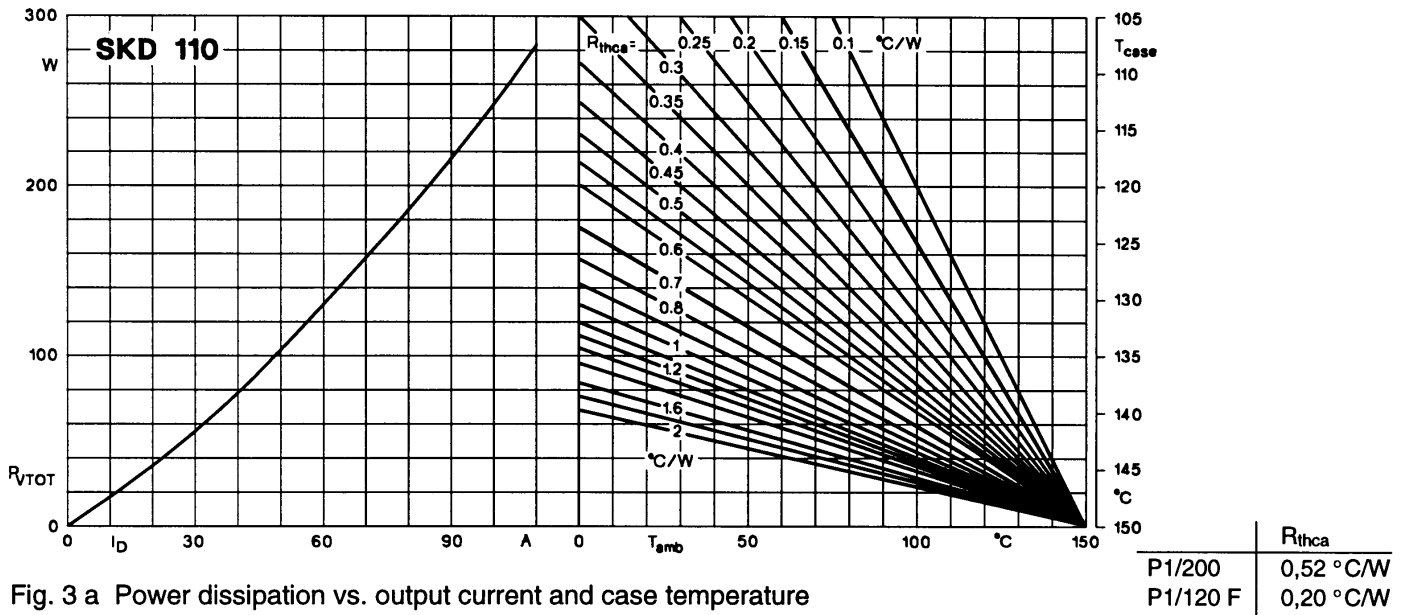


Fig. 3 a Power dissipation vs. output current and case temperature

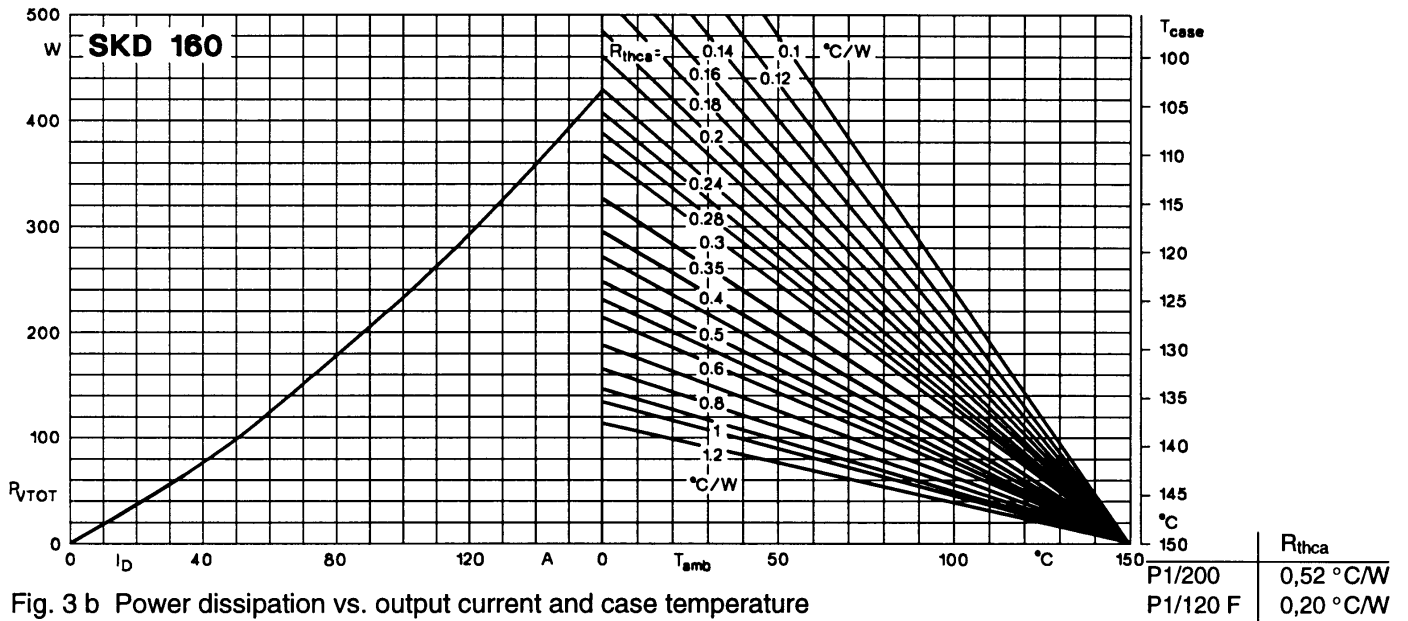


Fig. 3 b Power dissipation vs. output current and case temperature

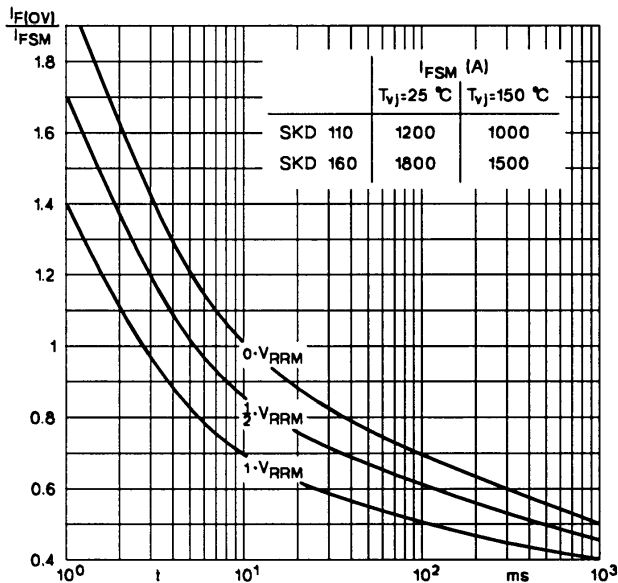


Fig. 5 Surge overload current vs. time

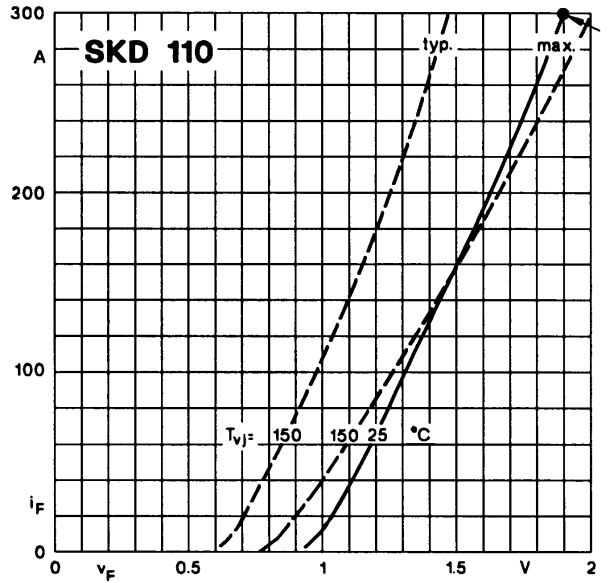


Fig. 9 a Forward characteristics of a single diode

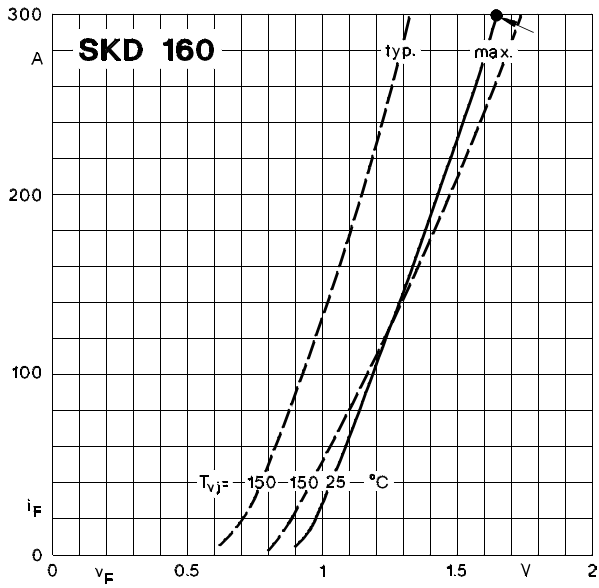


Fig. 9 b Forward characteristics of a single diode

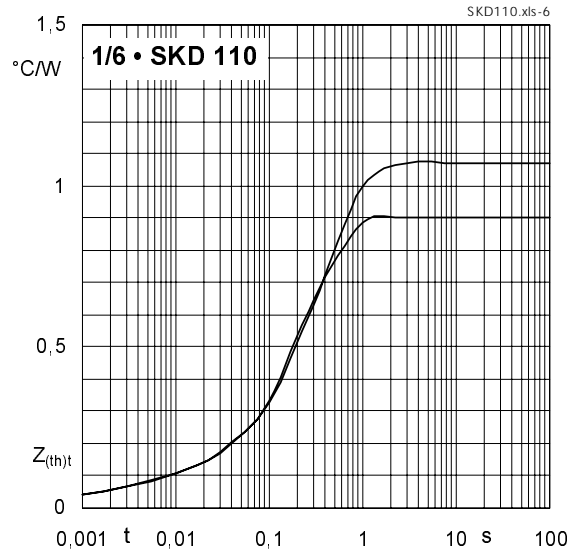


Fig. 12 a Transient thermal impedance vs. time

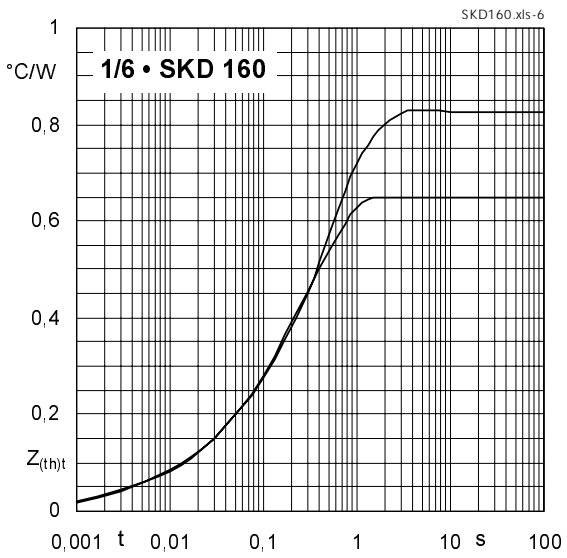
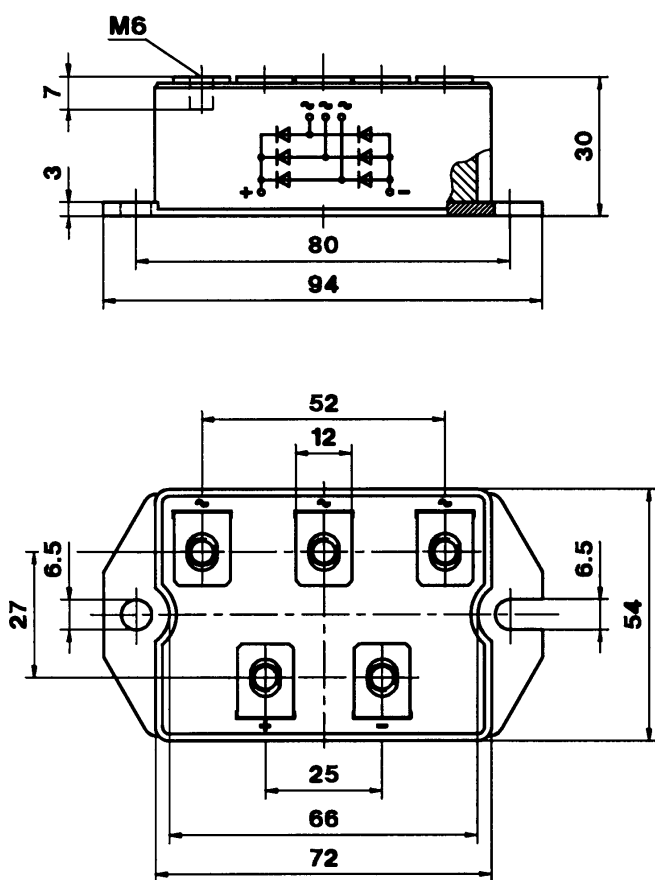


Fig. 12 b Transient thermal impedance vs. time

SKD 110  
SKD 160

SEMIPONT® 4

Case G 37



Dimensions in mm