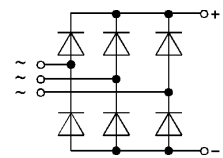


SEMIPONT® 4 Power Bridge Rectifiers

**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_{RSM} V_{RRM}	I_D ($T_{case} = 100\text{ °C}$)	
	110 A	160 A
200 V	SKD 110/02	SKD 160/02
400 V	SKD 110/04	SKD 160/04
800 V	SKD 110/08	SKD 160/08
1200 V	SKD 110/12	SKD 160/12
1400 V	SKD 110/14	SKD 160/14
1600 V	SKD 110/16	SKD 160/16
1800 V	SKD 110/18*	SKD 160/18*

Symbol	Conditions	SKD 110	SKD 160	Units
I_D	$T_{case} = 100\text{ °C}$	110	160	A
	$T_{amb} = 45\text{ °C}$, chassis ¹⁾	28	30	A
		70	75	A
	$T_{amb} = 35\text{ °C}$, P1/120 F P3/120 F	110 123	145 146	A A
I_{FSM}	$T_{vj} = 25\text{ °C}$, 10 ms	1200	1800	A
	$T_{vj} = 150\text{ °C}$, 10 ms	1000	1500	A
i^2t	$T_{vj} = 25\text{ °C}$, 8,3...10 ms	7200	16 200	A ² s
	$T_{vj} = 150\text{ °C}$, 8,3...10 ms	5000	11 200	A ² s
V_F	$T_{vj} = 25\text{ °C}$; $I_F = 300\text{ A}$	1, 9	1,65	V
$V_{(TO)}$	$T_{vj} = 150\text{ °C}$	0,85	0,85	V
r_T	$T_{vj} = 150\text{ °C}$	4	3	mΩ
I_{RD}	$T_{vj} = 25\text{ °C}$; $V_{RD} = V_{RRM}$	0,5	0,5	mA
	$T_{vj} = 150\text{ °C}$; $V_{RD} = V_{RRM}$	5	6	mA
R_{thjc}	per diode	0,9	0,65	°C/W
	total	0,15	0,11	°C/W
R_{thch}	total	0,03		°C/W
T_{vj}		– 40 ... + 150		°C
T_{stg}		– 40 ... + 125		°C
V_{isol}	a.c. 50...60 Hz; r.m.s.; 1 s / 1 min	3600 / 3000		V~
M_1	to heatsink	5 ± 15 %		Nm
	US units	44 ± 15 %		lb. in.
M_2	to terminals	5 ± 15 %		Nm
	US units	44 ± 15 %		lb. in.
w		270		g
Case		G 37		

* Available in limited quantities

¹⁾ Painted metal sheet of minimum 250 x 250 x 1 mm: $R_{thca} = 1,8\text{ °C/W}$

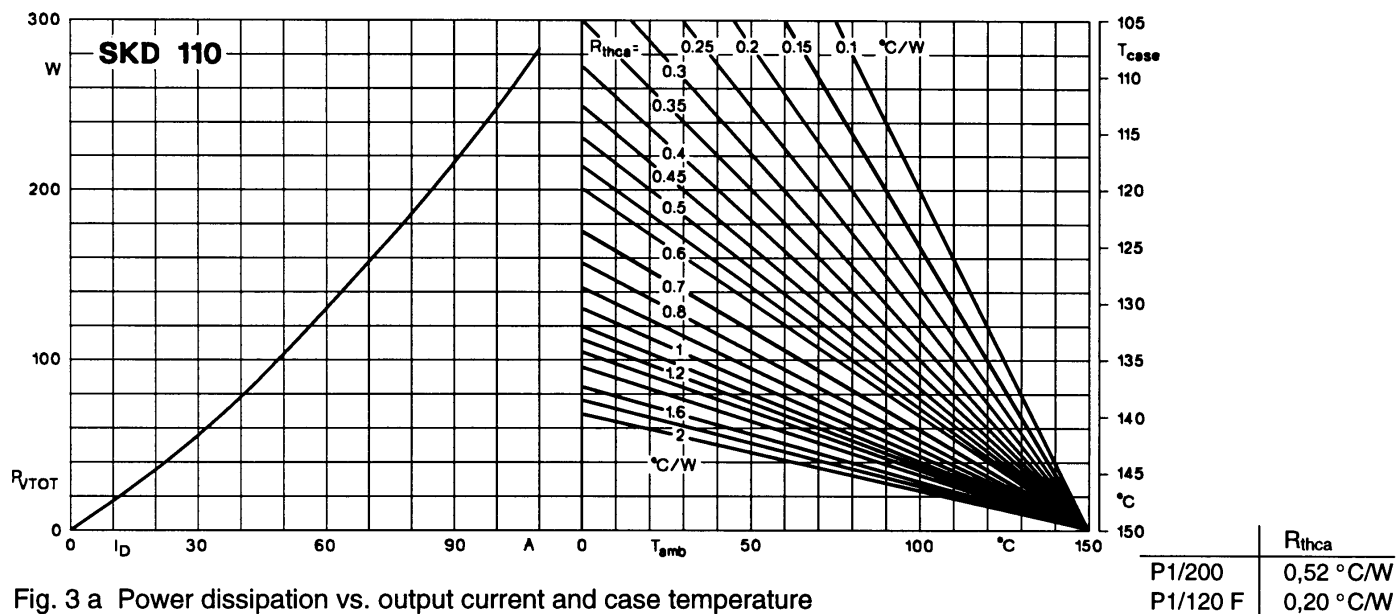


Fig. 3 a Power dissipation vs. output current and case temperature

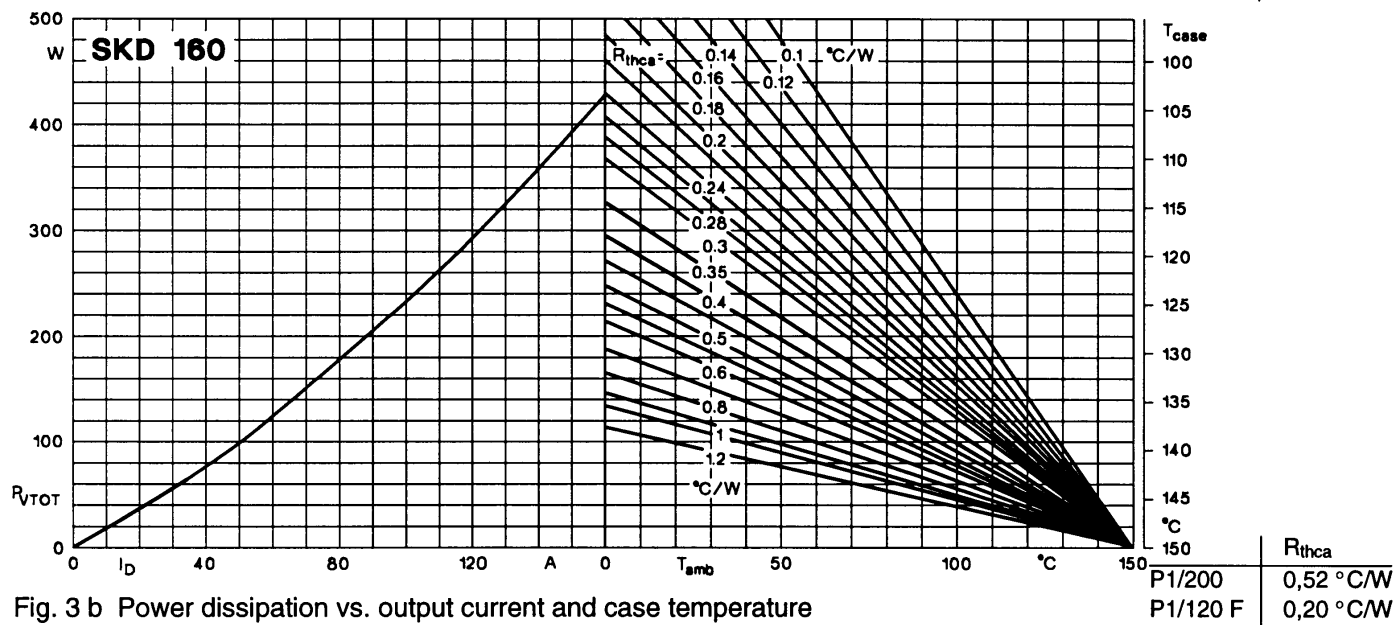


Fig. 3 b Power dissipation vs. output current and case temperature

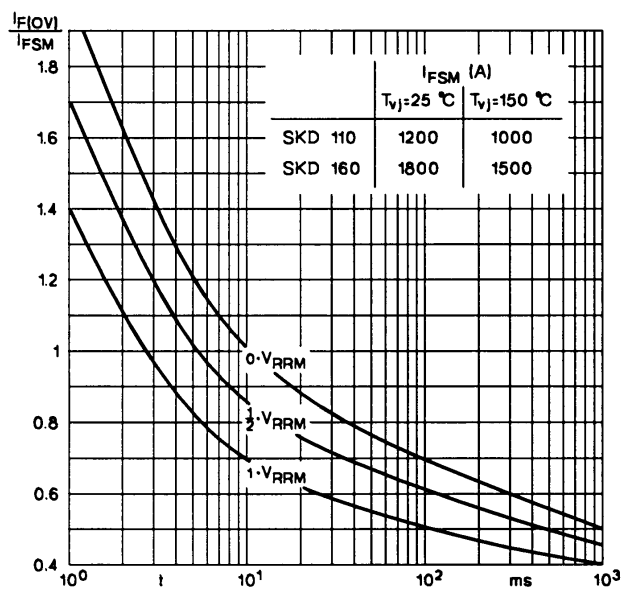


Fig. 5 Surge overload current vs. time

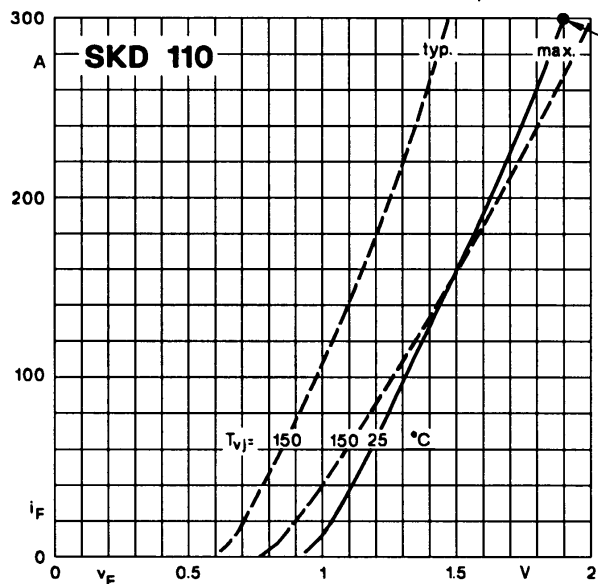
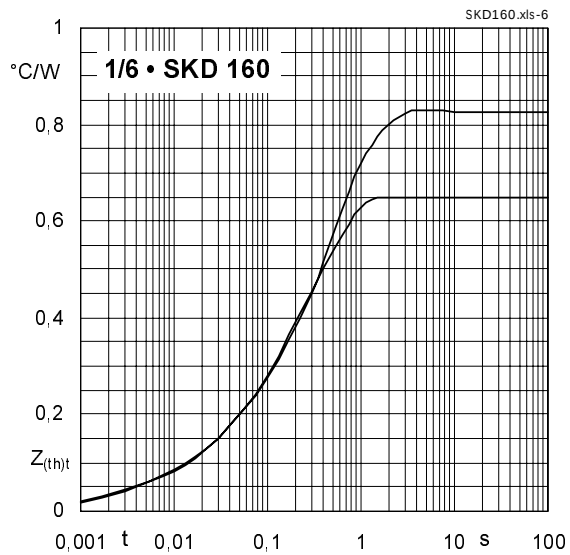
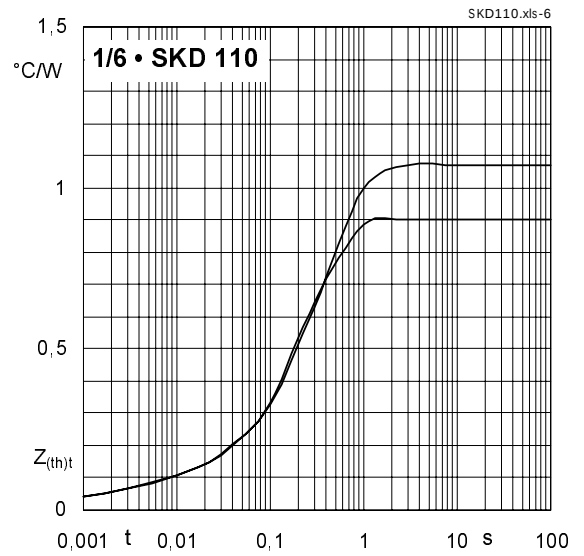
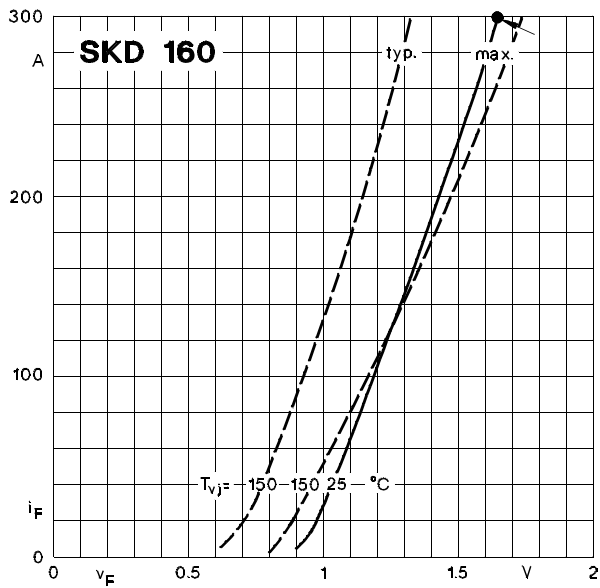


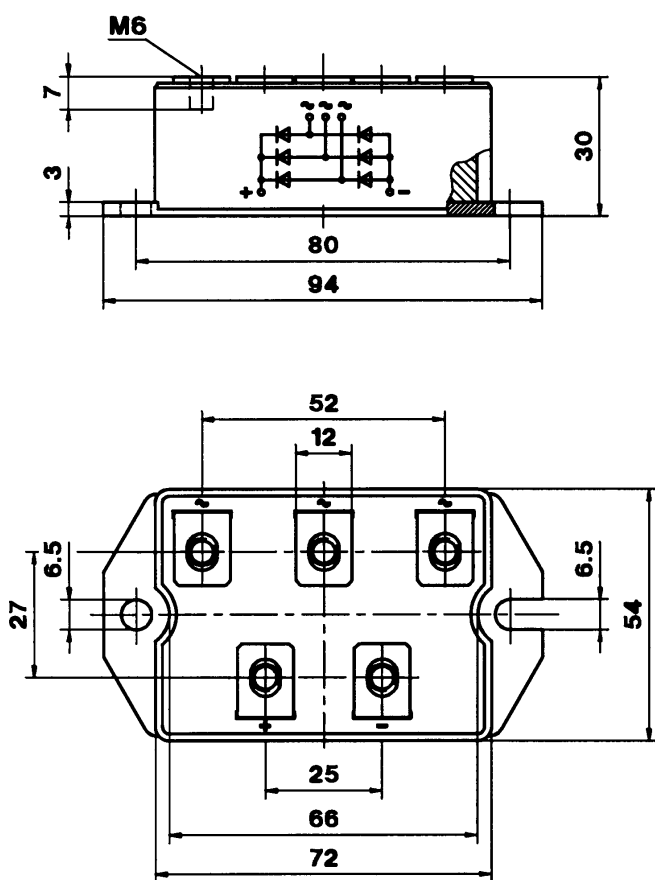
Fig. 9 a Forward characteristics of a single diode



SKD 110
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SEMIPONT® 4

Case G 37



Dimensions in mm