SKD 35 AV

Square bridge

V_{RSM}, V_{RRM} V	V_{RMS} V	I_D = 40 A (T_c = 70 ºC) Types	Cmax uF	Rmin Ω
1200 1600	760 1000	SKD 35/12 AV SKD 35/16 AV		1 1,5

Power Bridge Rectifiers

SKD 35

Features

- Reverse breakdown with avalanche behaviour
- Square plastic case with isolated metal base plate and fast-on connectors
- Blocking voltage up to 1800 V
- Avalanche characteristic
- High surge currents
- Easy chassis mounting
- UL recognized, file no. E 63532

Typical Applications

- Three phase rectifier for power supplies
- Input rectifiers for variable frequency drives
- Rectifier for DC motor field supplies
- Battery charger rectifiers
- Recommended snubber network: RC: 50 Ω, 0.1 µF (P_R = 1 W)

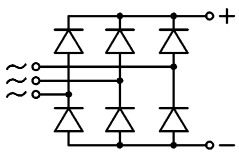
1) Freely suspended or mounted on an insulator

2) Mounted on a painted metal sheet of min. 250 x 250 x 1 mm

3) Recommended V values: $V_{RMS} = V_{RRM}$ / 2,83

4) Can be supplied with tinned terminals on request

Symbol	Condition	Values	Units
I_D	T_a = 45 ºC, P1/120 natural cooling	30	A
	T_a = 45 ºC, chassis[2)]	15	A
I_{DCL}	T_a = 45 ºC, P1/120 forced cooling	40	A
	T_a = 45 ºC, P1/120 natural cooling	30	A
	T_a = 45 ºC, chassis[2)]	15	A
I_{FSM}	T_{vj} = 25 ºC ; 10 ms	400	A
	T_{vj} = 150 ºC ; 10 ms	345	A
i^2t	T_{vj} = 25 ºC ; 8,3 ...10 ms	800	A^2s
	T_{vj} = 150 ºC ; 8,3 ...10 ms	600	A^2s
V_F	T_{vj} = 25 ºC, I_F = 150 A	max. 1,8	V
$V_{(TO)}$	T_{vj} = 150 ºC	0,90	V
r_T	T_{vj} = 150 ºC	max. 6	mΩ
I_{RD}	T_{vj} = 25 ºC ; $V_{RD} = V_{RRM}$	50	µA
I_{RD}	T_{vj} = 150 ºC ; $V_{RD} = V_{RRM}$	3	mA
t_{rr}	T_{vj} = 25 ºC	10	µs
f_G		2000	Hz
$R_{th(j-a)}$	isolated[1)]	14	K/W
	chassis[2)]	3,7	K/W
$R_{th(j-c)}$	total (typical)	0,9	K/W
$R_{th(c-s)}$	total	0,15	K/W
T_{vj}		-40 ... +150	°C
T_{stg}		-55 ... +150	°C
V_{isol}	a. c. 50 ... 60 Hz; r.m.s.; 1 s / 1 min.	3000 / 2500	V~
M_s	to heatsink SI units	2 ± 15 %	Nm
	US units	18 ± 15%	Lb. in.
M	approx.	23	g
Case		G 11b	



SKD

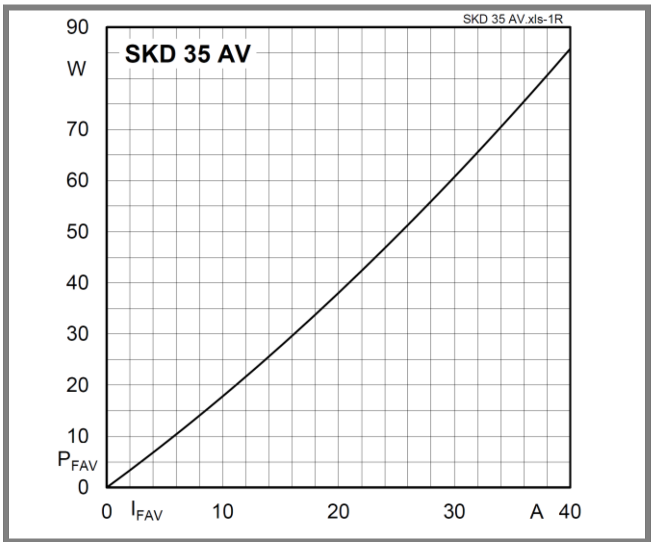


Fig. 01 Power dissipation vs. output current

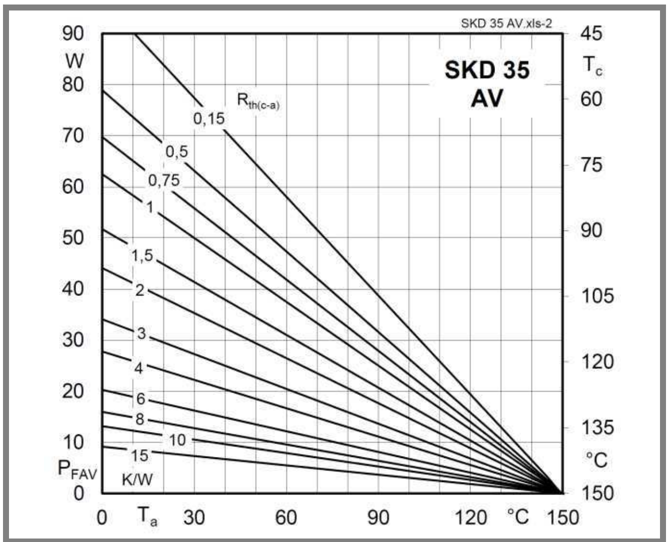


Fig. 02 Power dissipation vs. ambient temperature

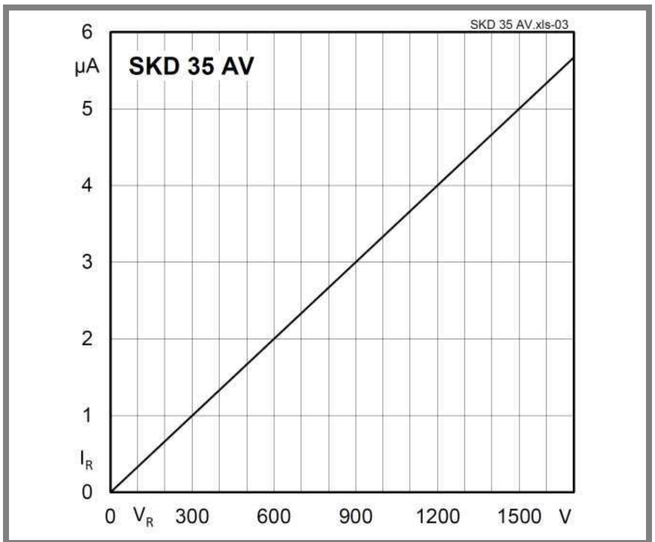


Fig. 03 Reverse Characteristics

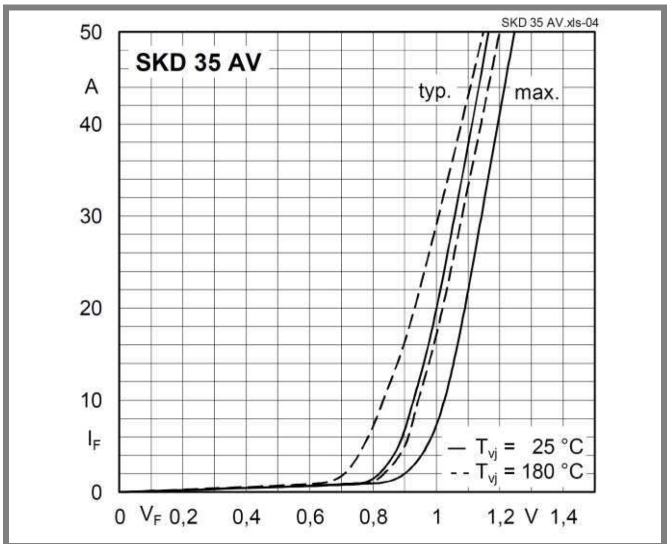


Fig. 04 Forward Characteristics of a diode arm

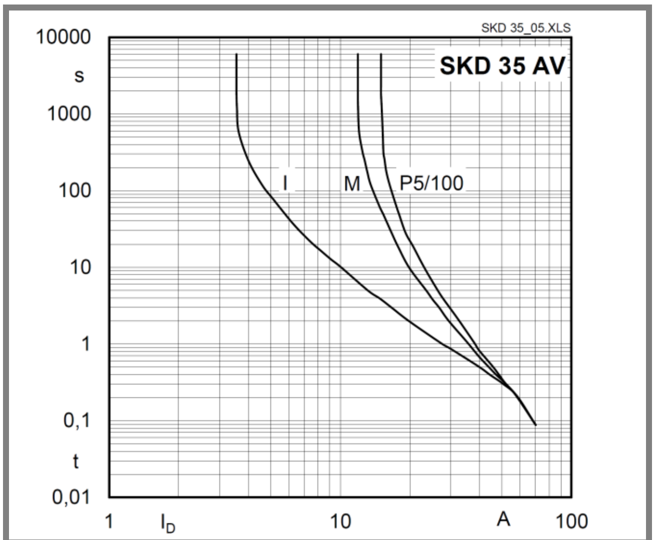
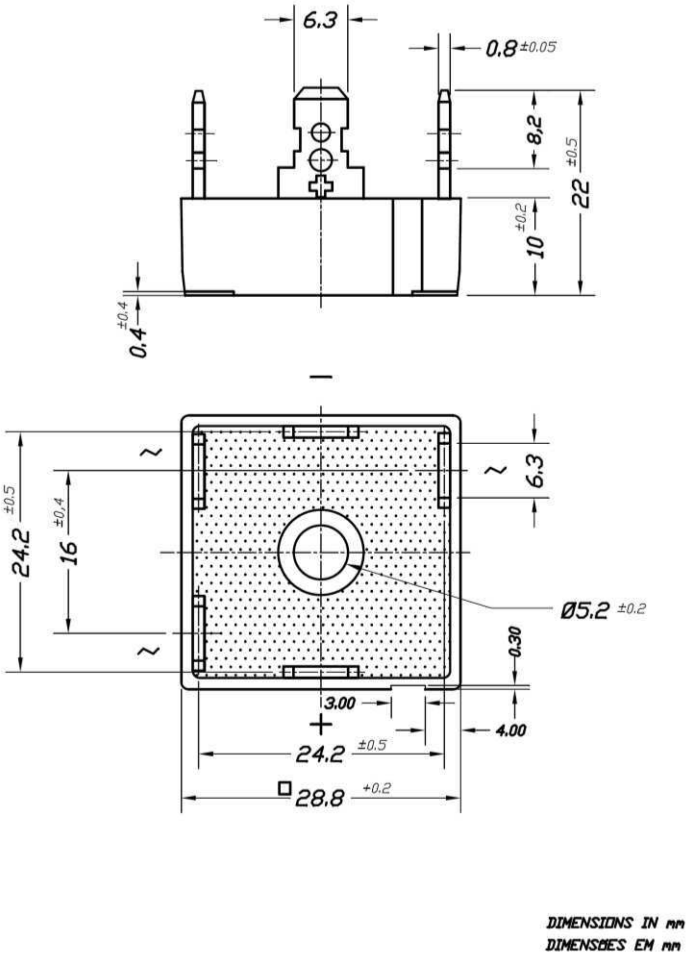


Fig. 5 Rated overload characteristics vs time



Case G11b

*IMPORTANT INFORMATION AND WARNINGS
The specifications of SEMIKRON products may not be considered as guarantee or assurance of product characteristics ("Beschaffenheitsgarantie"). The specifications of SEMIKRON products describe only the usual characteristics of products to be expected in typical applications, which may still vary depending on the specific application. Therefore, products must be tested for the respective application in advance. Application adjustments may be necessary. The user of SEMIKRON products is responsible for the safety of their applications embedding SEMIKRON products and must take adequate safety measures to prevent the applications from causing a physical injury, fire or other problem if any of SEMIKRON products become faulty. The user is responsible to make sure that the application design is compliant with all applicable laws, regulations, norms and standards. Except as otherwise explicitly approved by SEMIKRON in a written document signed by authorized representatives of SEMIKRON, SEMIKRON products may not be used in any applications where a failure of the product or any consequences of the use thereof can reasonably be expected to result in personal injury. No representation or warranty is given and no liability is assumed with respect to the accuracy, completeness and/or use of any information herein, including without limitation, warranties of non-infringement of intellectual property rights of any third party. SEMIKRON does not assume any liability arising out of the applications or use of any product; neither does it convey any license under its patent rights, copyrights, trade secrets or other intellectual property rights, nor the rights of others. SEMIKRON makes no representation or warranty of non-infringement or alleged non-infringement of intellectual property rights of any third party which may arise from applications. Due to technical requirements our products may contain dangerous substances. For information on the types in question please contact the nearest SEMIKRON sales office. This document supersedes and replaces all information previously supplied and may be superseded by updates. SEMIKRON reserves the right to make changes.