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	760	SKD 35/12 AV		1
1600	1000	SKD 35/16 AV		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)

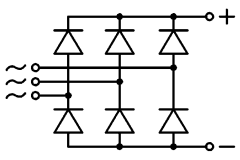
1) Freely suspended or mounted on an insulator

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

SKD 35 AV

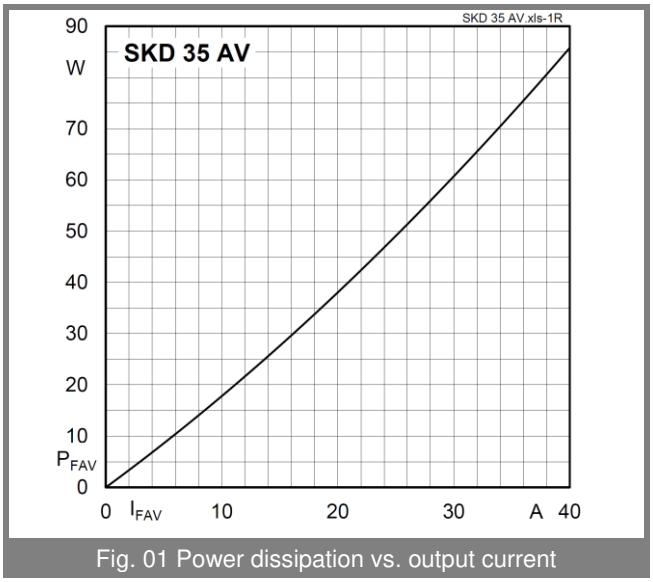


Fig. 01 Power dissipation vs. output current

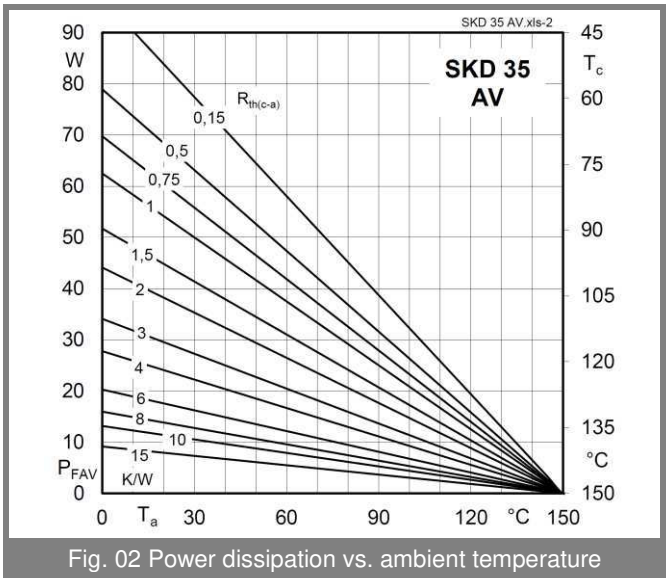


Fig. 02 Power dissipation vs. ambient temperature

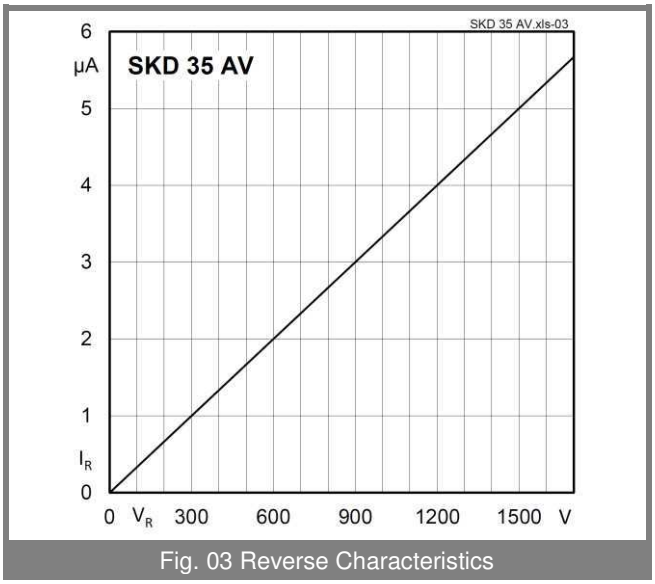


Fig. 03 Reverse Characteristics

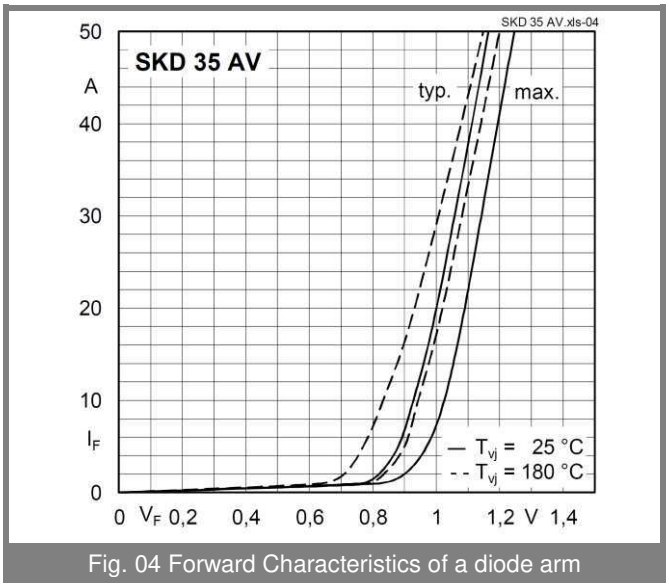


Fig. 04 Forward Characteristics of a diode arm

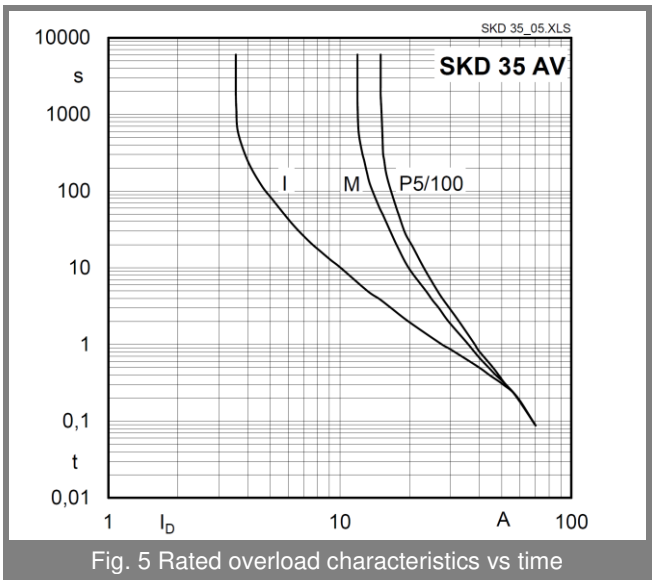
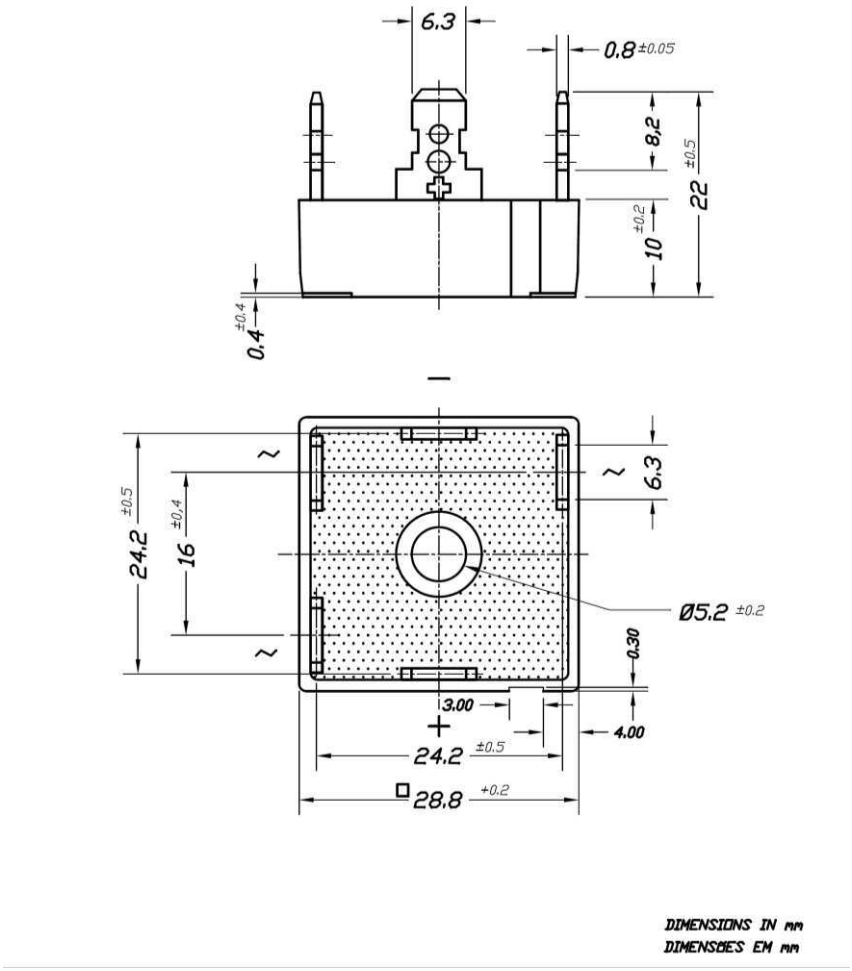


Fig. 5 Rated overload characteristics vs time



Case G11b

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