SKD 35

Square bridge

Power Bridge Rectifiers

SKD 35

Features

- Square plastic case with isolated metal base plate and fast-on connectors
- Blocking voltage up to 1600 V
- High surge currents
- Notch moulded in casing for easy polarity identification
- Easy chassis mounting

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)
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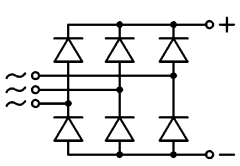
1) Freely suspended or mounted on an insulator

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

3) Recommended

V_{RSM}, V_{RRM} V	V_{RMS} [3] V	I_D = 36 A (T_c = 70 ºC) Types
400	125	SKD 35/04
800	250	SKD 35/08
1000	310	SKD 35/10
1200	400	SKD 35/12
1400	440	SKD 35/14
1600	500	SKD 35/16

Symbol	Condition	Values	Units
I_D	T_a = 45 ºC, P1/120 natural cooling	28	A
	T_a = 45 ºC, chassis [2]	14,5	A
I_{DCL}	T_c = 35 ºC, P1/120 forced cooling	36	A
	T_c = 45 ºC, P1/120 natural cooling	28	A
	T_a = 45 ºC, chassis [2]	14,5	A
I_{FSM}	T_{vj} = 25 ºC ; 10 ms	370	A
	T_{vj} = 150 ºC ; 10 ms	320	A
i^2t	T_{vj} = 25 ºC ; 8,3 ...10 ms	680	A^2s
	T_{vj} = 150 ºC ; 8,3 ...10 ms	500	A^2s
V_F	T_{vj} = 25 ºC, I_F = 150 A	max. 1,90	V
$V_{(TO)}$	T_{vj} = 150 ºC	0,85	V
r_T	T_{vj} = 150 ºC	7	mΩ
I_{RD}	T_{vj} = 25 ºC ; V_{RD} = V_{RRM}	300	µA
I_{RD}	T_{vj} = 150 ºC ; V_{RD} = V_{RRM}	5	mA
t_{rr}	T_{vj} = 25 ºC	Typ. 10	µs
f_G		2000	Hz
$R_{th(j-a)}$	isolated [1]	14	K/W
	chassis [2]	3,8	K/W
$R_{th(j-c)}$	total	1,0	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

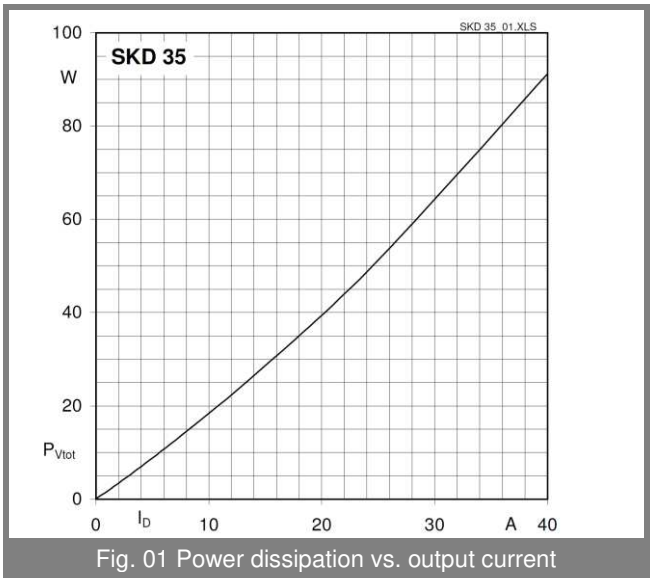


Fig. 01 Power dissipation vs. output current

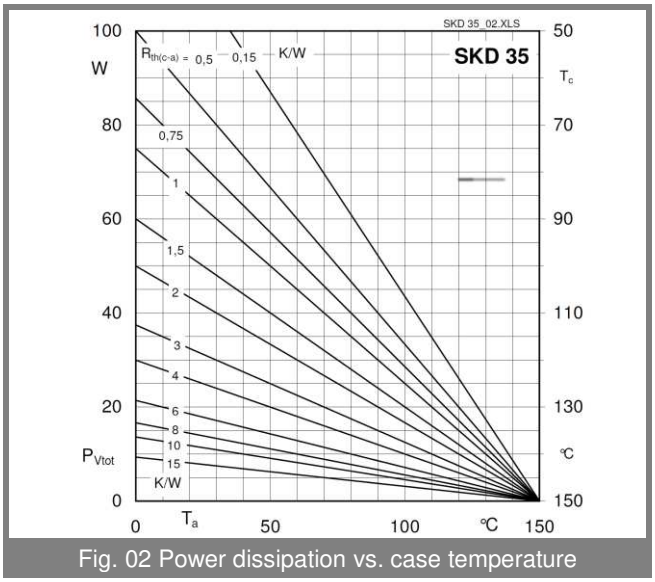


Fig. 02 Power dissipation vs. case temperature

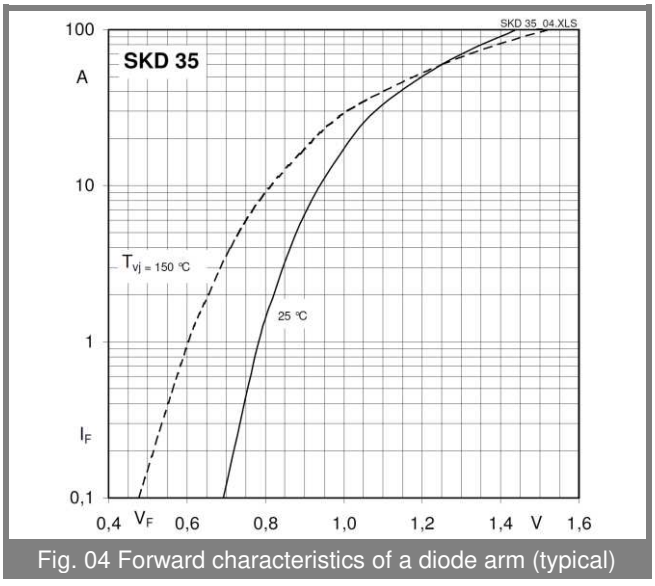


Fig. 04 Forward characteristics of a diode arm (typical)

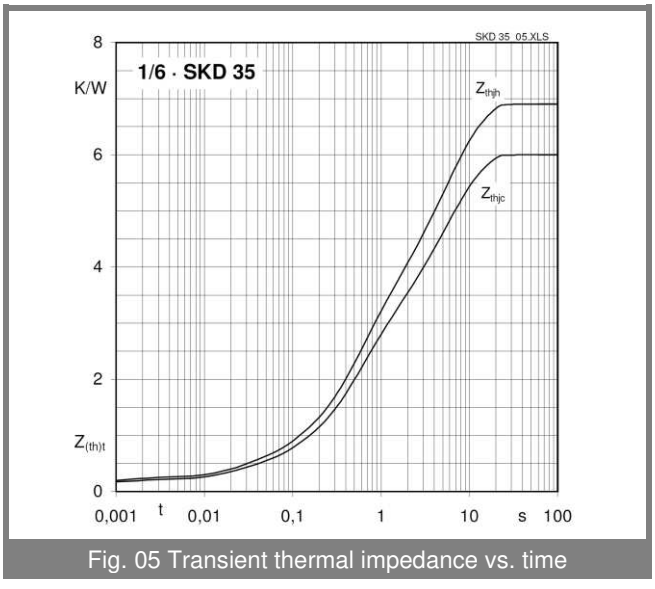
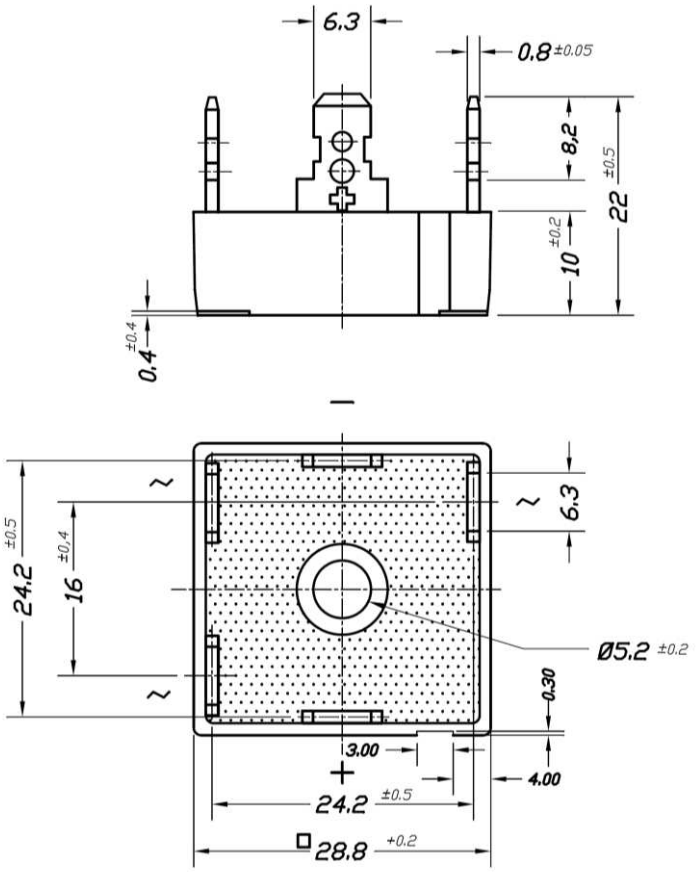


Fig. 05 Transient thermal impedance vs. time

Dimensions in mm



Case G11b

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