

# SKD 35



Square bridge

## Power Bridge Rectifiers

### SKD 35

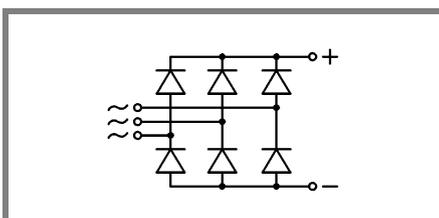
#### Features

- 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  $\Omega$ , 0.1  $\mu$ F ( $P_R = 1$  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



SKD

$V_{RSM}, V_{RRM}$ V	$V_{RMS}^{(3)}$ V	$I_D = 36$ A ( $T_c = 70$ °C) 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
$I_D$	$T_a = 45$ °C, P1/120 natural cooling	28	A
	$T_a = 45$ °C, chassis <sup>2)</sup>	14,5	A
$I_{DCL}$	$T_c = 35$ °C, P1/120 forced cooling	36	A
	$T_c = 45$ °C, P1/120 natural cooling	28	A
	$T_a = 45$ °C, chassis <sup>2)</sup>	14,5	A
$I_{FSM}$	$T_{vj} = 25$ °C ; 10 ms	370	A
	$T_{vj} = 150$ °C ; 10 ms	320	A
$i^2t$	$T_{vj} = 25$ °C ; 8,3 ...10 ms	680	A <sup>2</sup> s
	$T_{vj} = 150$ °C ; 8,3 ...10 ms	500	A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C, $I_F = 150$ A	max. 1,90	V
$V_{(TO)}$	$T_{vj} = 150$ °C	0,85	V
$r_T$	$T_{vj} = 150$ °C	7	m $\Omega$
$I_{RD}$	$T_{vj} = 25$ °C ; $V_{RD} = V_{RRM}$	300	$\mu$ A
$I_{RD}$	$T_{vj} = 150$ °C ; $V_{RD} = V_{RRM}$	5	mA
$t_{rr}$	$T_{vj} = 25$ °C	Typ. 10	$\mu$ s
$f_G$		2000	Hz
$R_{th(j-a)}$	isolated <sup>1)</sup>	14	K/W
	chassis <sup>2)</sup>	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	$2 \pm 15$ %	Nm
	US units	$18 \pm 15$ %	Lb. in.
M	approx.	23	g
Case		G 11b	

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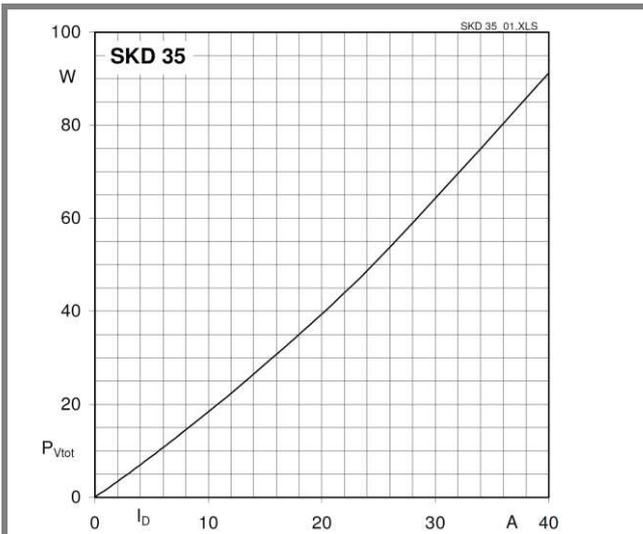


Fig. 01 Power dissipation vs. output current

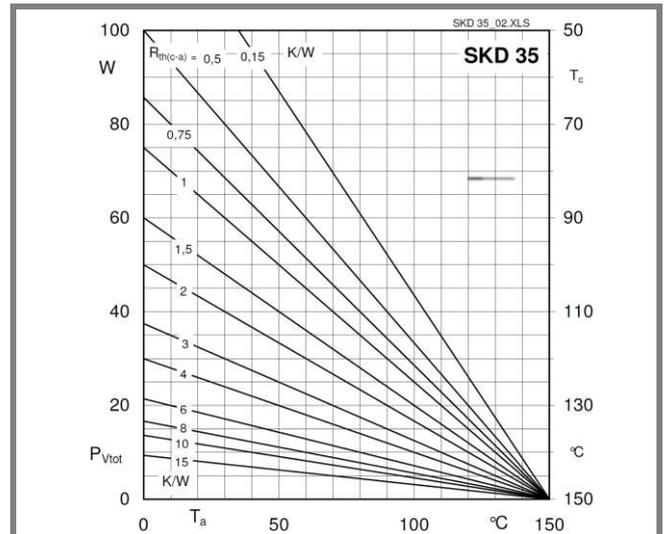


Fig. 02 Power dissipation vs. case temperature

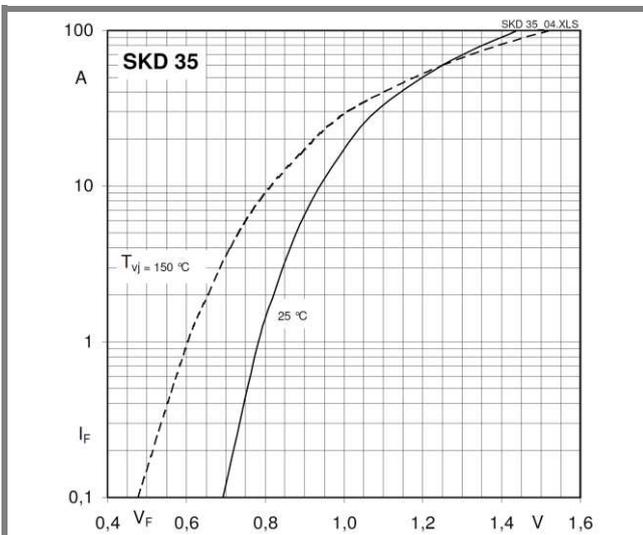


Fig. 04 Forward characteristics of a diode arm (typical)

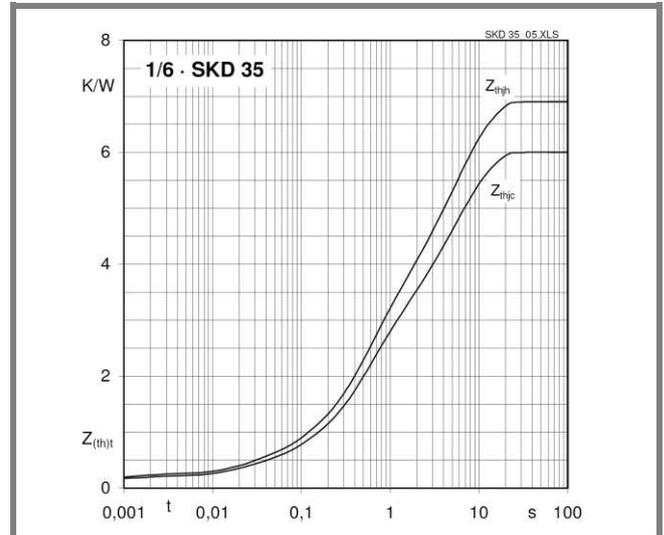


Fig. 05 Transient thermal impedance vs. time

