



Power Bridge Rectifiers

SKD 25

Features

- Square plastic case with isolated metal base plate and fast-on connectors
- Blocking voltage to 1600 V
- High surge current
- Easy chassis mounting
- UL recognized, file no. E 63 532

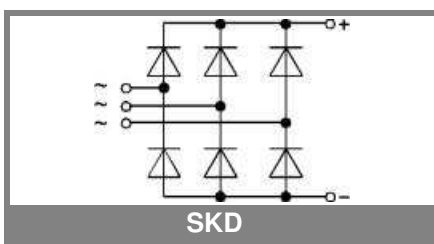
Typical Applications*

- 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 ($P_R = 1 \text{ W}$)

- 1) Freely suspended or mounted on an insulator
- 2) Mounted on a painted metal sheet of min. 250 x 250 x 1 mm

V_{RSM}, V_{RRM} V	V_{VRMS} V	$I_D = 20 \text{ A } (T_c = 73 \text{ °C})$ Types	C_{max} μF	R_{min} Ω
200		SKD 25/02		0,15
400		SKD 25/04		0,3
800		SKD 25/08		0,7
1200		SKD 25/12		1
1400		SKD 25/14		1,2
1600		SKD 25/16		1,5

Symbol	Conditions	Values	Units
I_D	$T_a = 45 \text{ °C, isolated}^1)$ $T_a = 45 \text{ °C, chassis}^2)$	3,5 12	A A
I_{DCL}	$T_a = 45 \text{ °C, isolated}^1)$ $T_a = 45 \text{ °C, chassis}^2)$ $T_a = \text{ °C,}$	3,5 12	A A A
I_{FSM}	$T_{vj} = 25 \text{ °C, 10 ms}$ $T_{vj} = 150 \text{ °C, 10 ms}$	370 320	A A
i^2t	$T_{vj} = 25 \text{ °C, 8,3 ... 10 ms}$ $T_{vj} = 150 \text{ °C, 8,3 ... 10 ms}$	680 500	A ² s A ² s
V_F	$T_{vj} = 25 \text{ °C, } I_F = 150 \text{ A}$	max. 2,2	V
$V_{(TO)}$	$T_{vj} = 150 \text{ °C}$	max. 0,85	V
r_T	$T_{vj} = 150 \text{ °C}$	max. 12	mΩ
I_{RD}	$T_{vj} = 25 \text{ °C, } V_{RD} = V_{RRM}$ $T_{vj} = \text{ °C, } V_{RD} = V_{RRM} \geq V$	300	μA μA
I_{RD}	$T_{vj} = 150 \text{ °C, } V_{RD} = V_{RRM}$ $T_{vj} = \text{ °C, } V_{RD} = V_{RRM} \geq V$	5	mA mA
t_{tr}	$T_{vj} = 25 \text{ °C}$	10	μs
f_G		2000	Hz
$R_{th(j-a)}$	isolated ¹⁾ chassis ²⁾	15 4,7	K/W K/W
$R_{th(j-c)}$	total	1,75	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	2 ± 15 %	Nm
M_t			Nm
a			m/s ²
w		26	g
F_u		20	A
Case		G 11b	



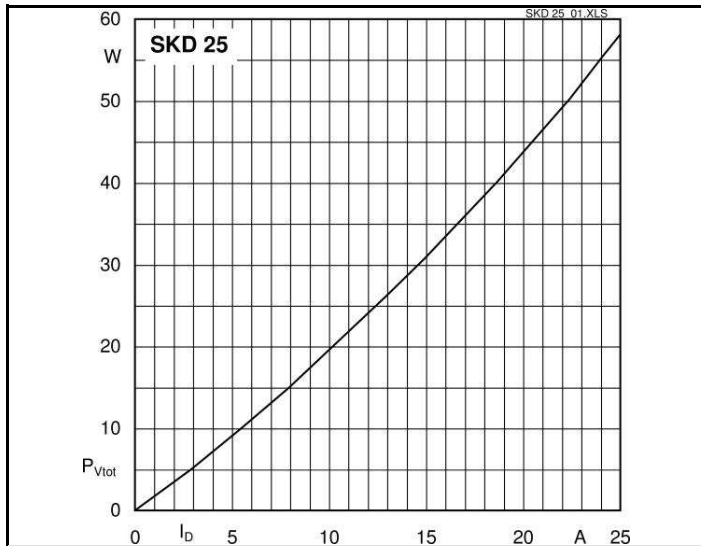


Fig. 3L Power dissipation vs. output current

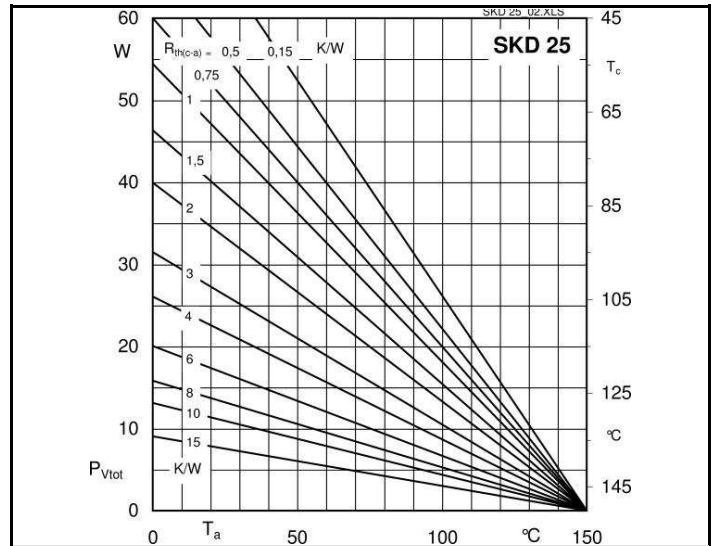


Fig. 3R Power dissipation vs. case temperature

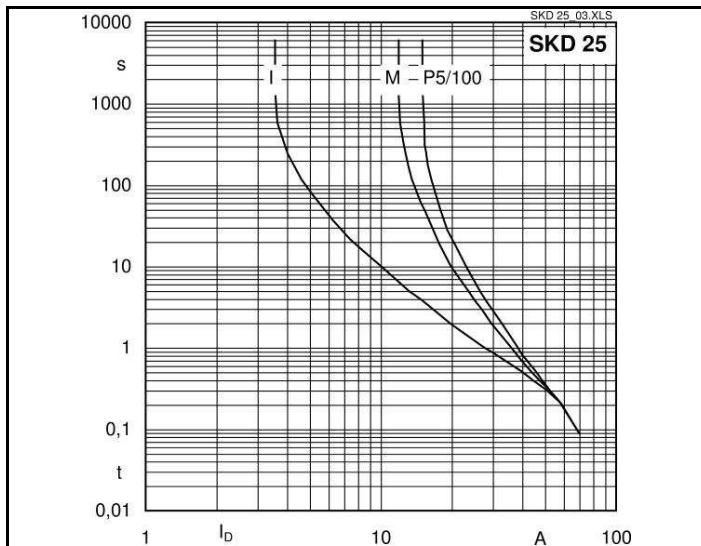


Fig. 6 Rated overload characteristics vs. time

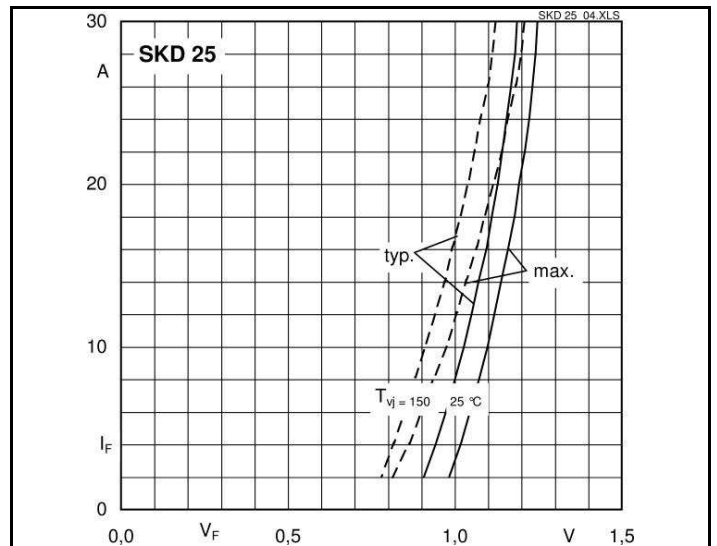


Fig. 9 Forward characteristics of a diode arm

