



## 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

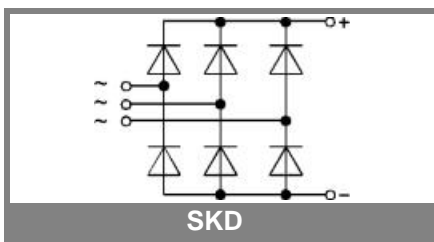
#### Typical Applications

- 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 <sup>2</sup> s A <sup>2</sup> 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 <sup>1)</sup> chassis <sup>2)</sup>	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 <sup>2</sup>
$w$		26	g
$F_u$		20	A
Case		G 11b	



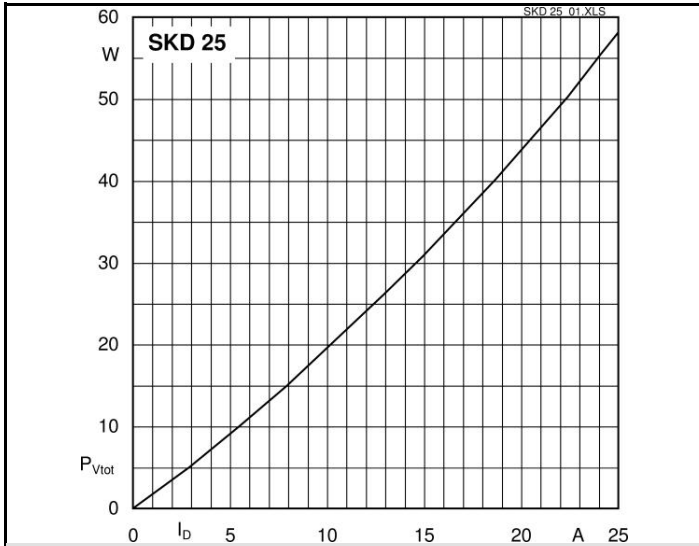


Fig. 3L Power dissipation vs. output current

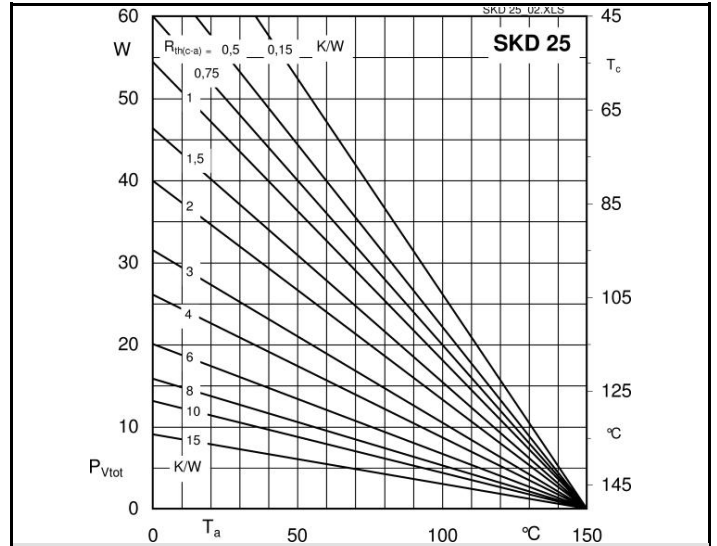


Fig. 3R Power dissipation vs. case temperature

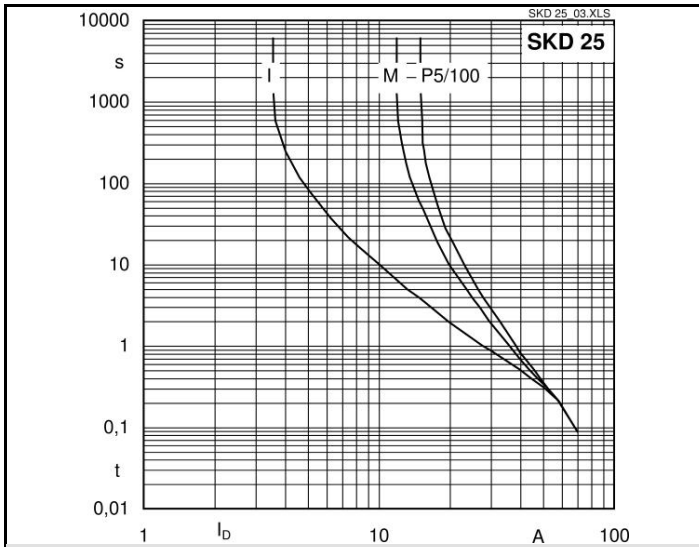


Fig. 6 Rated overload characteristics vs. time

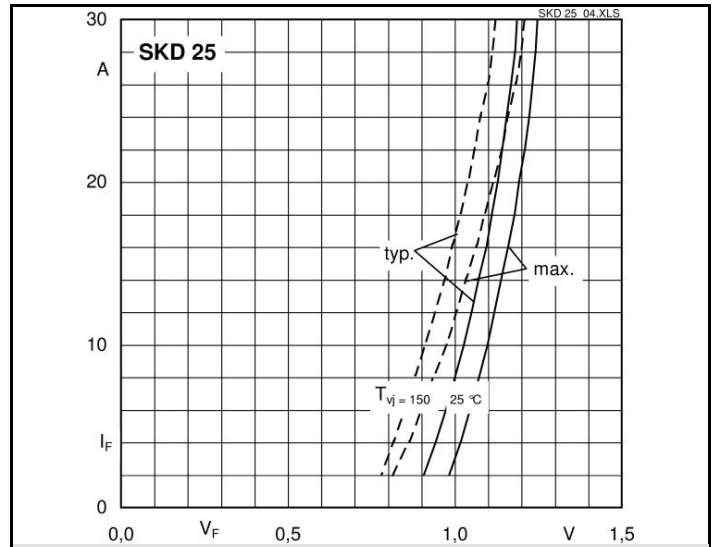
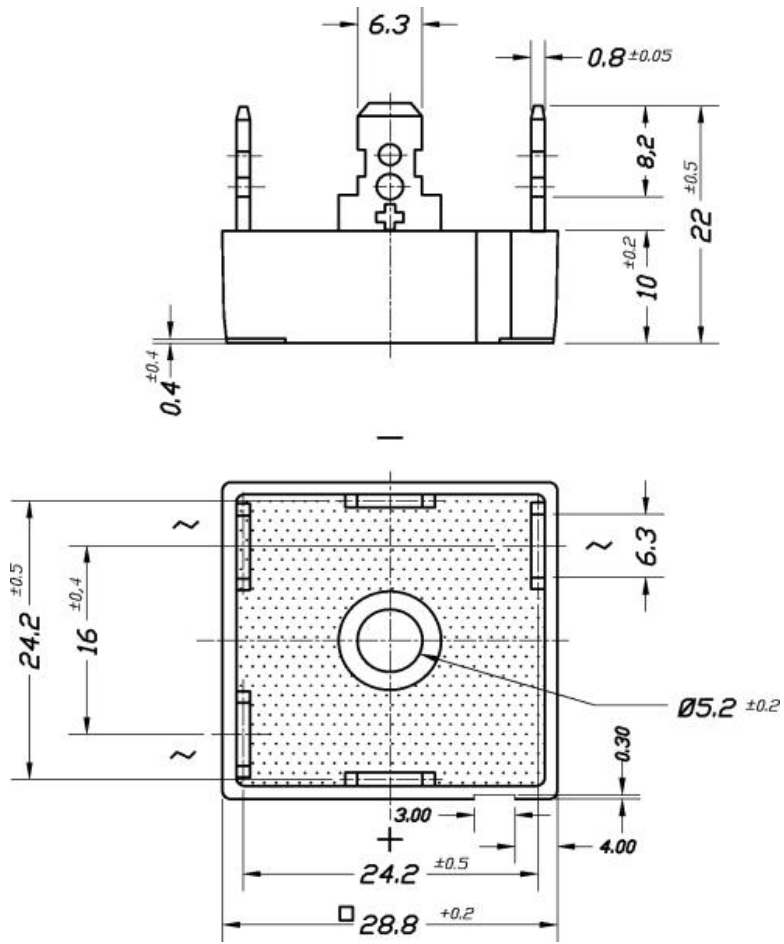


Fig. 9 Forward characteristics of a diode arm



Case G 11b

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