



Avalanche bridge

Power Bridge Rectifiers

SKBa 25

Features

- Square plastic case with isolated metal base plate and fast-on connectors
- Avalanche characteristics
- Minimum breakdown voltage of 1300 and 1700 V
- High surge current
- Easy chassis mounting
- UL-94V0 plastic material

Typical Applications

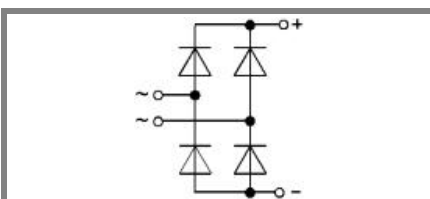
- Inductive Loads
- Solenoid power supply
- Motor brakes
- Rectifier for power supplies
- DC motor field supplies

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	$I_D = 17 \text{ A } (T_c = 75 \text{ }^\circ\text{C})$ Types	C_{max} μF	R_{min} Ω
	500 660	SKBa 25/13 ($V_{(BR)min} = 1300 \text{ V}$) SKBa 25/17 ($V_{(BR)min} = 1700 \text{ V}$)		1 1,5
$P_{RSM} = 6 \text{ kW @ } T_{vj} = 150 \text{ }^\circ\text{C},$ $t_p = 10 \mu\text{s}$				

Symbol	Conditions	Values	Units
I_D	$T_a = 45 \text{ }^\circ\text{C}, \text{ isolated}^{(1)}$ $T_a = 45 \text{ }^\circ\text{C}, \text{ chassis}^{(2)}$	3,5 10	A A
I_{DCL}	$T_a = 45 \text{ }^\circ\text{C}, \text{ isolated}^{(1)}$ $T_a = 45 \text{ }^\circ\text{C}, \text{ chassis}^{(2)}$ $T_a = \text{ }^\circ\text{C},$	3 9,5	A A A
I_{FSM}	$T_{vj} = 25 \text{ }^\circ\text{C}, 10 \text{ ms}$ $T_{vj} = 150 \text{ }^\circ\text{C}, 10 \text{ ms}$	370 320	A A
i^2t	$T_{vj} = 25 \text{ }^\circ\text{C}, 8,3 \dots 10 \text{ ms}$ $T_{vj} = 150 \text{ }^\circ\text{C}, 8,3 \dots 10 \text{ ms}$	680 500	A^2s A^2s
V_F	$T_{vj} = 25 \text{ }^\circ\text{C}, I_F = 150 \text{ A}$	max. 2,2	V
$V_{(TO)}$	$T_{vj} = 150 \text{ }^\circ\text{C}$	max. 0,85	V
r_T	$T_{vj} = 150 \text{ }^\circ\text{C}$	max. 12	$\text{m}\Omega$
I_{RD}	$T_{vj} = 25 \text{ }^\circ\text{C}, V_{RD} = V_{RRM}$	20	μA
I_{RD}	$T_{vj} = \text{ }^\circ\text{C}, V_{RD} = V_{RRM} \geq V$		μA
I_{RD}	$T_{vj} = 150 \text{ }^\circ\text{C}, V_{RD} = V_{RRM}$ $T_{vj} = \text{ }^\circ\text{C}, V_{RD} = V_{RRM} \geq V$	4	mA mA
t_{rr}	$T_{vj} = 25 \text{ }^\circ\text{C}$	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	2	K/W
$R_{th(c-s)}$	total	0,15	K/W
T_{vj}		- 40 ... + 150	$^\circ\text{C}$
T_{stg}		- 55 ... + 150	$^\circ\text{C}$
V_{isol}	a.c. 50 ... 60 Hz; r.m.s.; 1 s / 1 min. to heatsink	3000 / 2500 2 \pm 15 %	V~ Nm Nm m/s^2
M_s			
M_t			
a			
w		24	g
F_u		20	A
Case		G 10b	



SKB

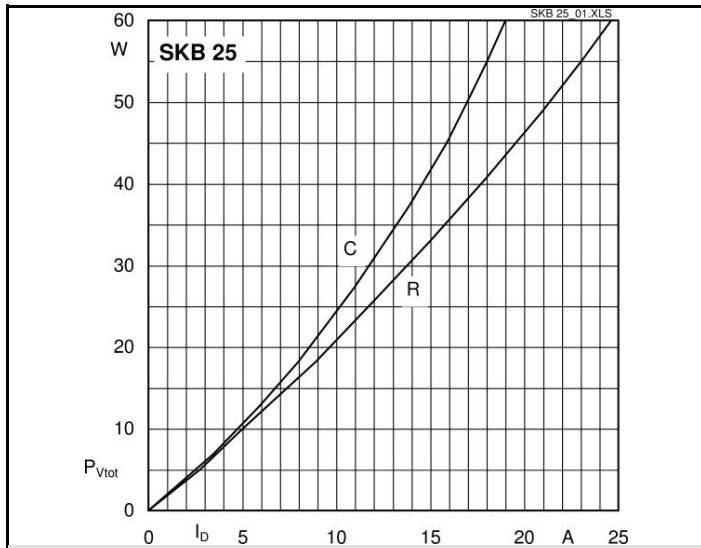


Fig. 3L Power dissipation vs. output current

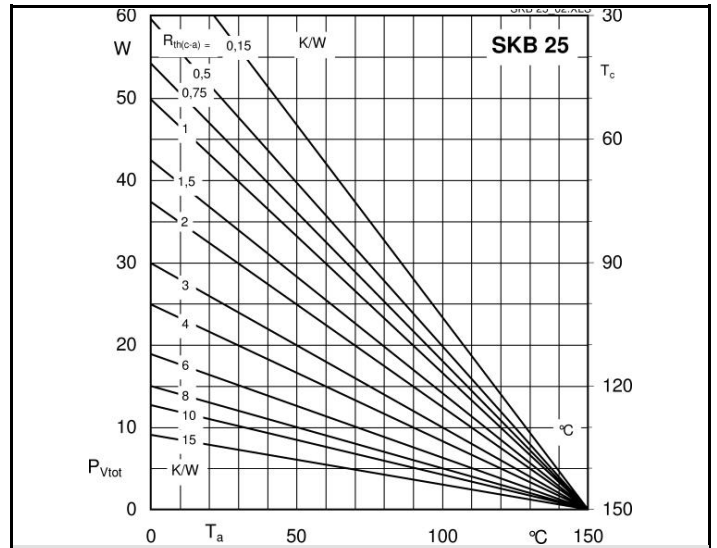


Fig. 3R Power dissipation vs. case temperature

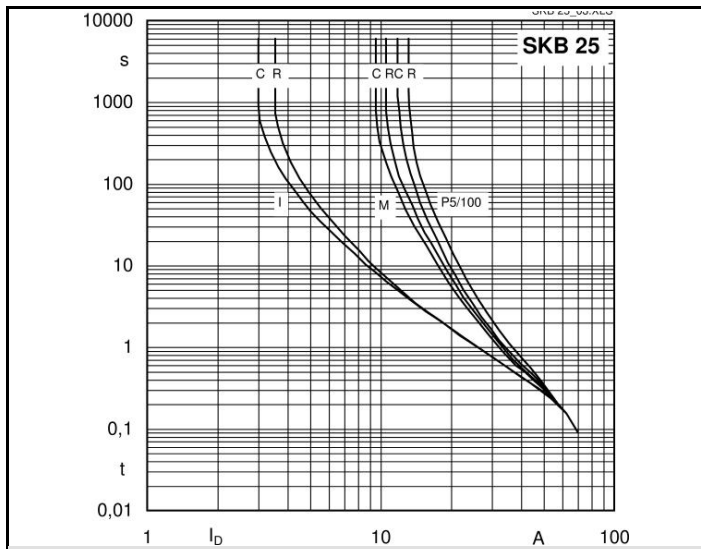


Fig. 6 Rated overload characteristics vs. time

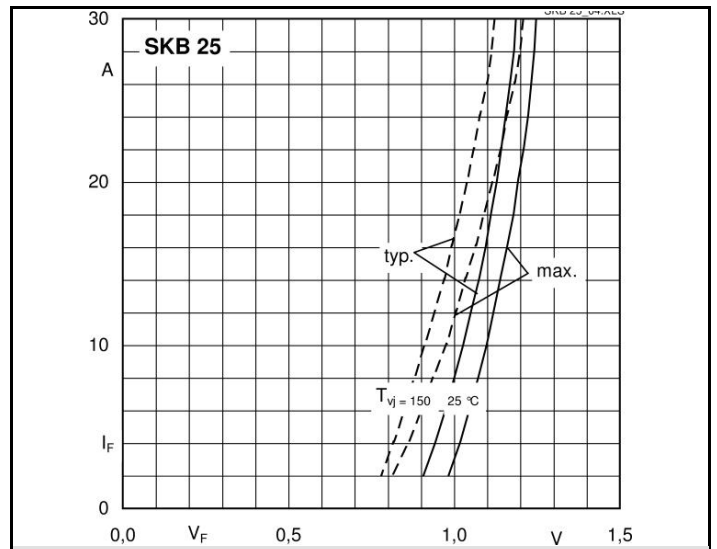
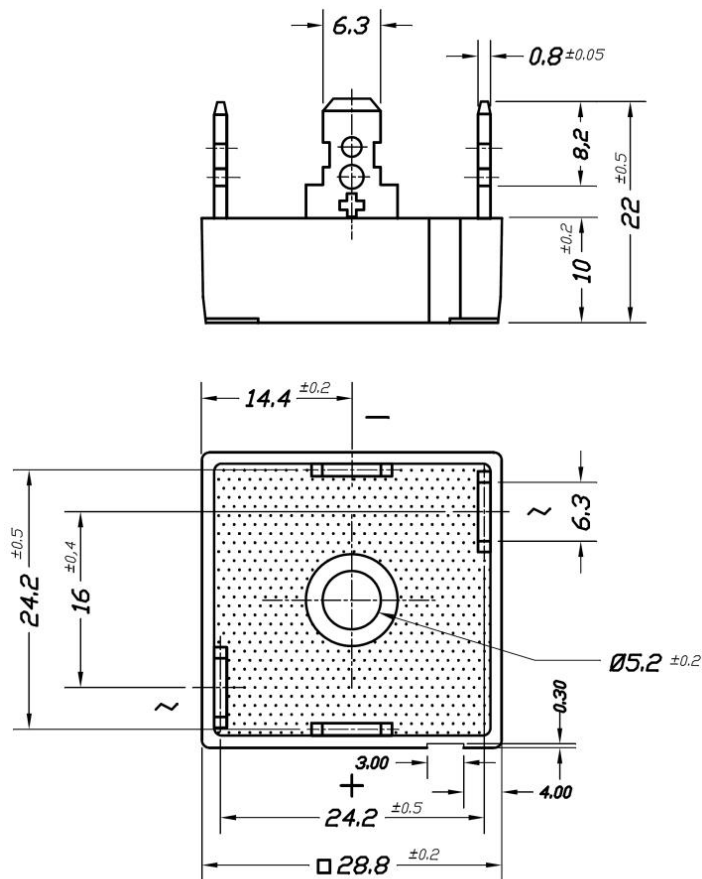


Fig. 9 Forward characteristics of a diode arm



Case G 10b

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.