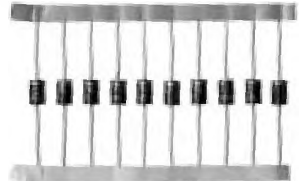


Rectifier Diodes

SK 1 **SK 3**
SKa 1 **SKa 3**



V_{RSM} V_{RRM}	IFRMS (maximum values for continuous operation)					
	3 A			6,7 A		
V	IFAV (sin. 180; $T_{amb} = 45\text{ °C}$)					
	1,15 A			1,8 A		
	Types	$C_{max.}$ μF	$R_{min.}$ Ω	Types	$C_{max.}$ μF	$R_{min.}$ Ω
1000	SK 1/10	500	4	SK 3/10	2000	1
1200	SK 1/12	400	6	SK 3/12	1600	2
1400	SK 1/14	300	8	SK 3/14	1200	3
1600	SK 1/16	200	10	SK 3/16	800	4
$V_{(BR)}$ min	Avalanche Types					
1300	SKa 1/13	400	6	SKa 3/13	1600	2
1700	SKa 1/17	200	10	SKa 3/17	800	4

Symbol	Conditions	SK 1 SKa 1	SK 3 SKa 3	Units
IFAV	$T_{ref} = 85\text{ °C}$; L = 10 mm; sin. 180 $T_{amb} = 45\text{ °C}$; p.c.b. 50 x 50 mm	1,45	3,3	A
		1,15	1,8	A
IFSM	$T_{vj} = 25\text{ °C}$; 10 ms $T_{vj} = 150\text{ °C}$; 10 ms	60	180	A
		50	150	A
i^2t	$T_{vj} = 25\text{ °C}$; 8,3 ... 10 ms $T_{vj} = 150\text{ °C}$; 8,3 ... 10 ms	18	162	A^2s
		12,5	112,5	A^2s
Q_{rr}	$T_{vj} = 150\text{ °C}$; $-\frac{di_F}{dt} = 10 \frac{\text{A}}{\mu\text{s}}$; $I_F = 10\text{ A}$; $V_R = 100\text{ V}$; typ.	10	25	μC
I_R	$T_{vj} = 25\text{ °C}$; $V_R = V_{RRM} / V_{(BR)min}$ $T_{vj} = 150\text{ °C}$; $V_R = V_{RRM} / V_{(BR)min}$	4	4	μA
		400	600	μA
P_{RSM}	SKa-Types only $T_{vj} = 150\text{ °C}$; $t_p = 10\text{ }\mu\text{s}$	1	3	kW
V_F	$T_{vj} = 25\text{ °C}$; $I_F = 10\text{ A}$; max.	1,5	1,2	V
$V_{(TO)}$	$T_{vj} = 150\text{ °C}$	0,85	0,85	V
r_T	$T_{vj} = 150\text{ °C}$	75	30	$\text{m}\Omega$
C_j	$V_R = 0$; $f = 1\text{ MHz}$; typ.	45	110	pF
R_{thjr}	L = 10 mm	40	18	$^{\circ}\text{C/W}$
R_{thja}	p.c.b. 50 x 50 mm	85	60	$^{\circ}\text{C/W}$
T_{vj}		- 40 ... + 150		$^{\circ}\text{C}$
T_{stg}		- 40 ... + 150		$^{\circ}\text{C}$
T_{solder}	max. 10 s; L \geq 9 mm	250		$^{\circ}\text{C}$
a		5 · 9,81		m/s^2
w	approx.	0,5	1	g

Features

- Axial lead diodes
- Taped for automatic insertion
- Available with formed leads on request
- Plastic material carries Underwriters Laboratories flammability classification 94V-0

SKa types

- Avalanche type reverse characteristics
- Minimum avalanche breakthrough voltages 1300 V and 1700 V
- Transient voltage proof within specified limits

Typical Applications

- All-purpose rectifier diodes
- For p.c.b. mounting

SKa types

- DC supply for magnets or solenoids (brakes, valves, etc.)
- Series connections for high voltage applications (dust precipitators)

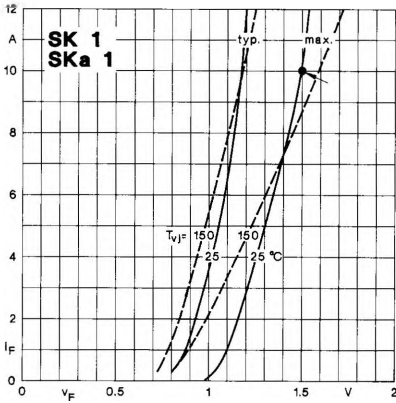


Fig. 6 a Forward characteristics

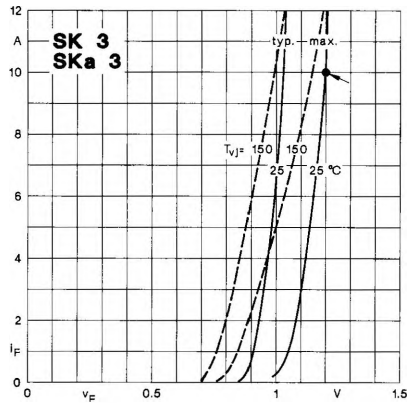


Fig. 6 b Forward characteristics

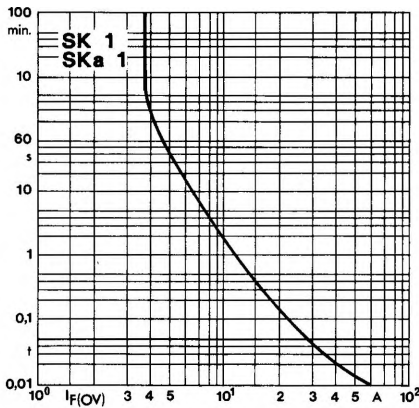


Fig. 10 a Rated overload current vs. time

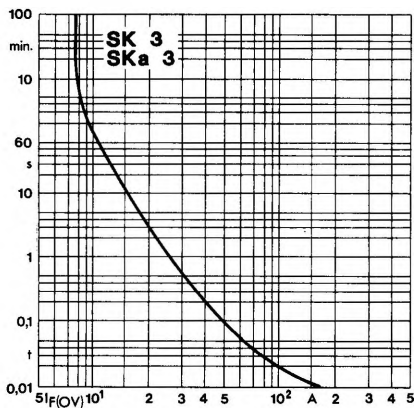


Fig. 10 b Rated overload current vs. time

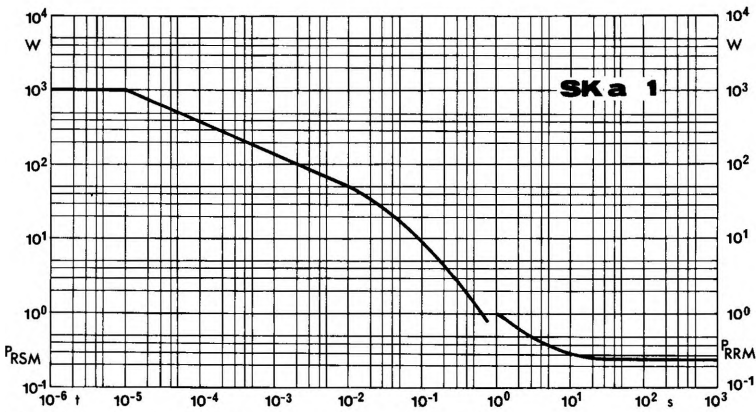


Fig. 11 a Rated reverse power dissipation vs. time

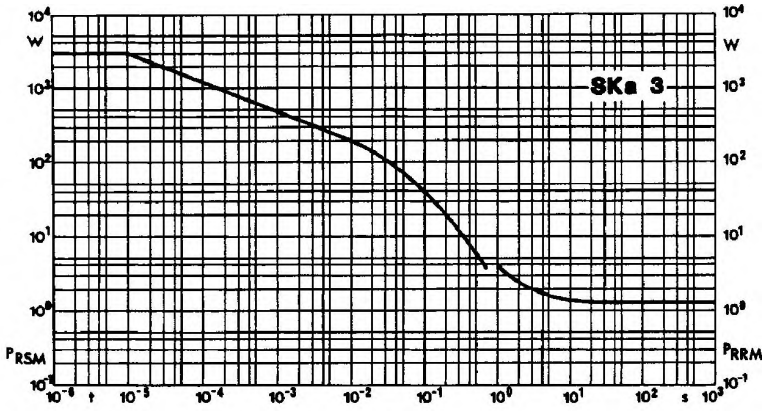


Fig. 11 b Rated reverse power dissipation vs. time

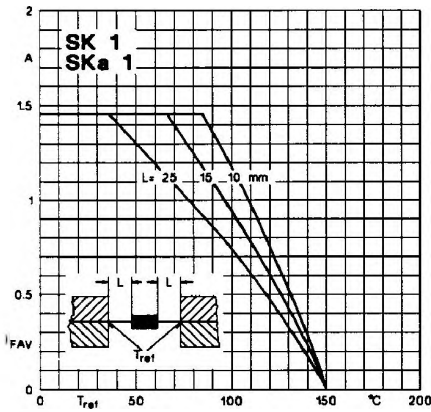


Fig. 14 a Rated forward current vs. reference temp.

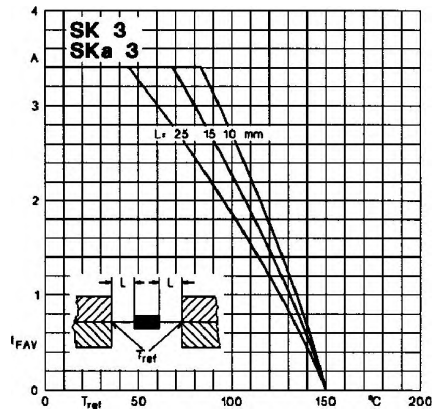


Fig. 14 b Rated forward current vs. reference temp.

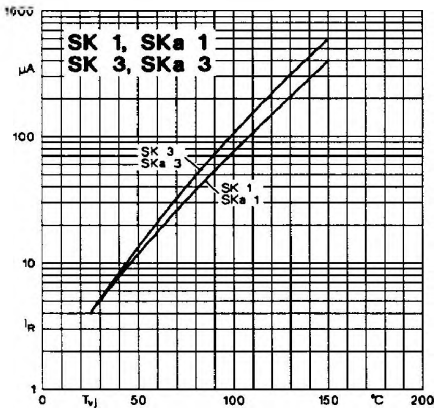


Fig. 15 Reverse current vs. virt. junction temp.

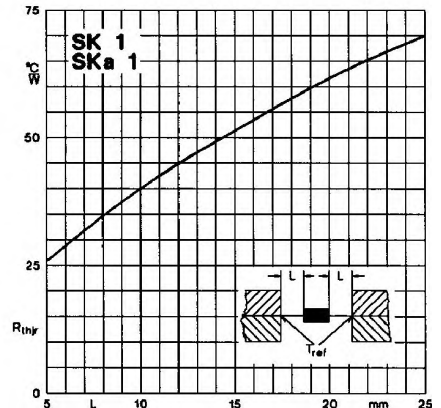


Fig. 16 a Thermal resistance vs. lead length

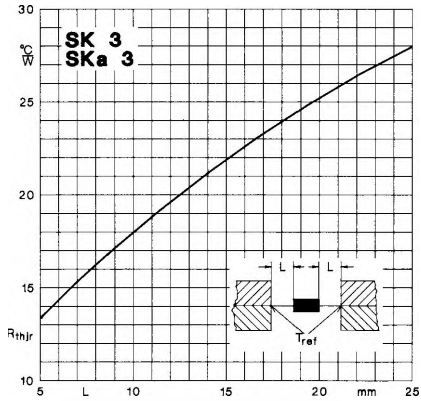
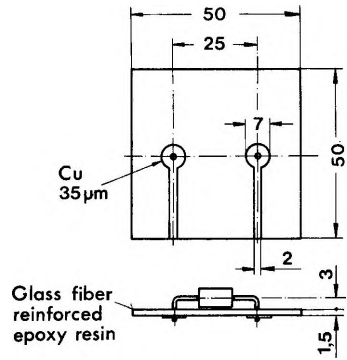
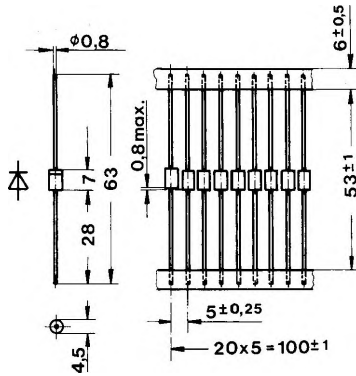


Fig. 16 b Thermal resistance vs. lead length

P.C.B. for $R_{thja} = 85 \text{ }^\circ\text{C/W}$ (SK 1)
 $R_{thja} = 60 \text{ }^\circ\text{C/W}$ (SK 3)

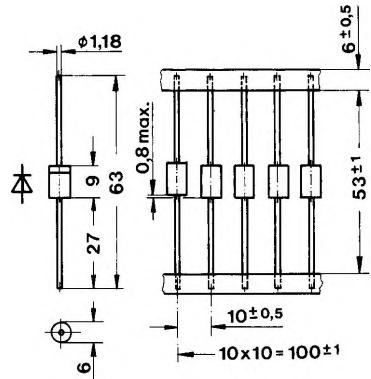


SK 1
SKa 1
Case E 33



3500 diodes per reel

SK 3
SKa 3
Case E 34



1500 diodes per reel

Reel dimensions page B 8 - 2

Dimensions in mm