SKa 1



Axial Lead Diode

Avalanche Diode

SKa 1

$V_{(BR)min}$	I_{FRMS} = 3 A (maximum value for continuous operation)	C_{max}	R_{min}
V	I_{FAV} = 1 A (sin. 180; T_a = 60 °C)	µF	Ω
1300	SKa 1/13	400	6
1700	SKa 1/17	200	10

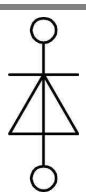
Symbol	Conditions	Values	Units
I_{FAV}	T_r = 85 °C; L = 10 mm; sin. 180	1,45	A
I_{FAV}	T_a = 45 °C; PCB 50 x 50 mm	1,15	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	60	A
	T_{vj} = 150 °C; 10 ms	50	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	18	A^2s
	T_{vj} = 150 °C; 8,3 ... 10 ms	12,5	A^2s
V_F	T_{vj} = 25 °C; I_F = 10 A	max. 1,5	V
$V_{(TO)}$	T_{vj} = 150 °C	max. 0,85	V
r_T	T_{vj} = 150 °C	max. 75	mΩ
I_{RD}	T_{vj} = 150 °C; V_{RD} = $V_{(BR)min}$	max. 400	µA
P_{RSM}	T_{vj} = 150 °C; t_p = 10 µs	1	kW
$R_{th(j-r)}$	L = 10 mm	40	K/W
$R_{th(j-a)}$	PCB 50 x 50 mm	85	K/W
T_{vj}		- 40 ... + 150	°C
T_{stg}		- 40 ... + 150	°C
T_{sold}	max. 10 s; L > 9 mm	250	°C
V_{isol}		-	V~
a		5 * 9,81	m/s^2
m	approx.	0,5	g
Case	3500 diodes per reel	E 33	

Features

- Avalanche type reverse characteristic
- Transient voltage proof within specified limits
- Taped for automatic insertion
- Available with formed leads on request
- Plastic material used carries Underwriter Laboratories flammability classification 94V-0

Typical Applications*

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



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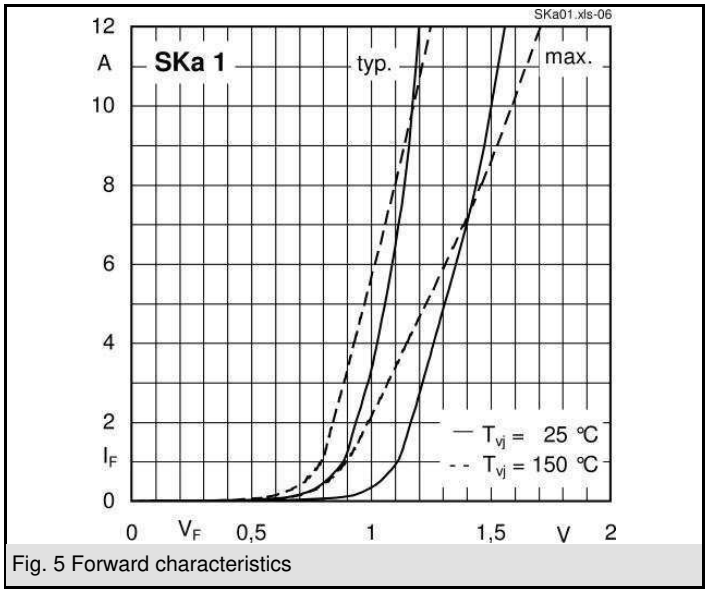


Fig. 5 Forward characteristics

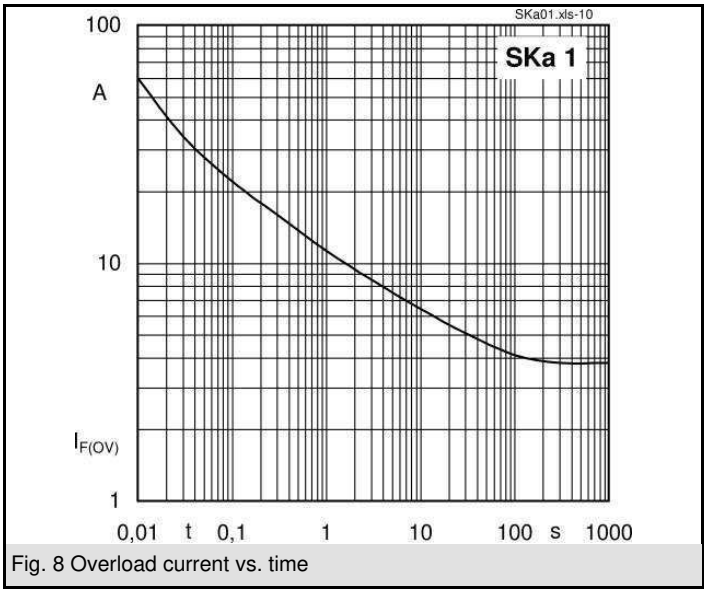


Fig. 8 Overload current vs. time

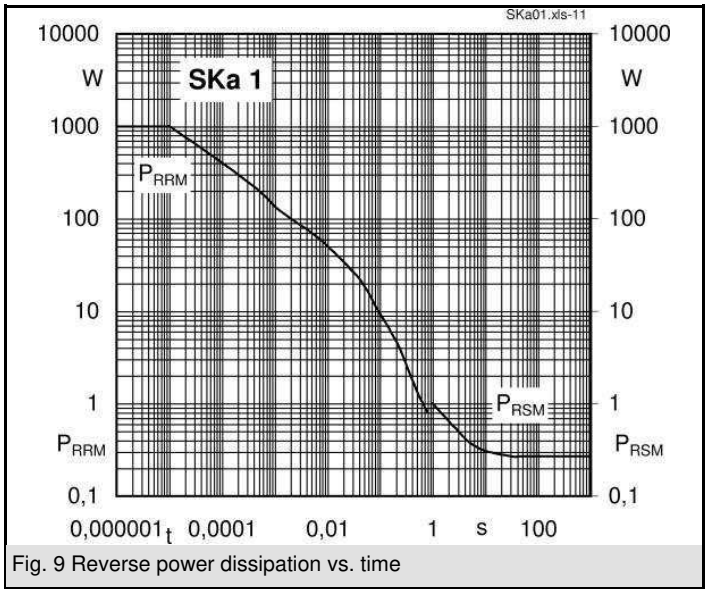


Fig. 9 Reverse power dissipation vs. time

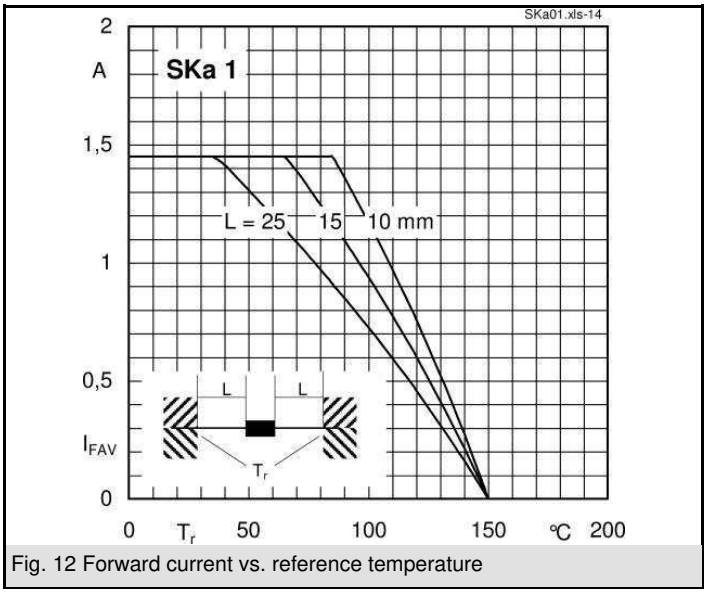


Fig. 12 Forward current vs. reference temperature

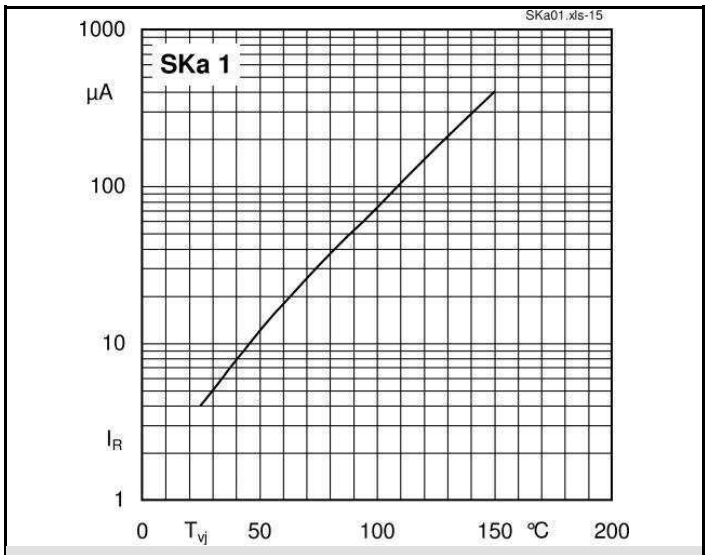


Fig. 13 Reverse current vs. junction temperature

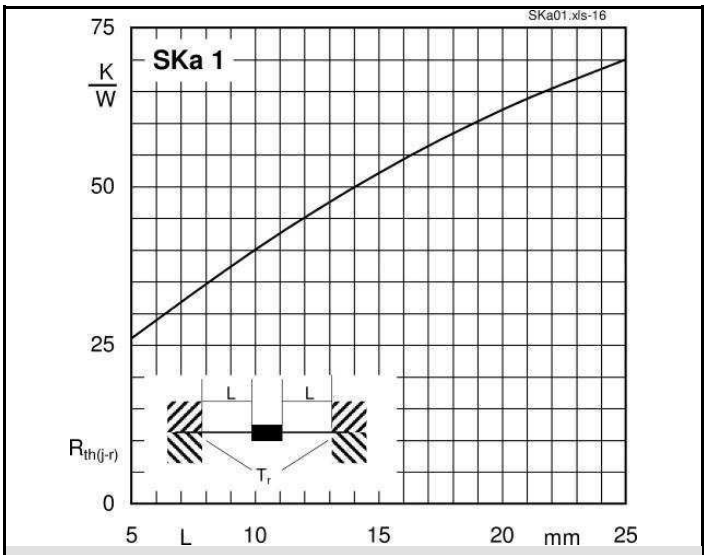
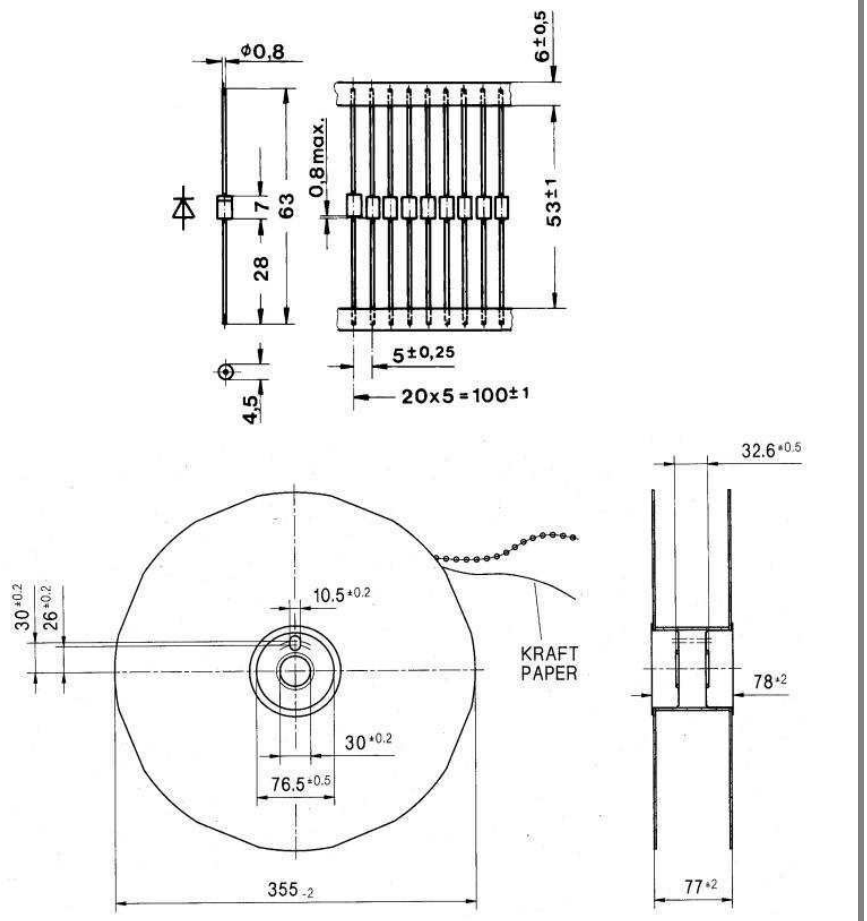


Fig. 14 Thermal resistance vs. lead length

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Dimensions in mm



CASE E 33

* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.

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