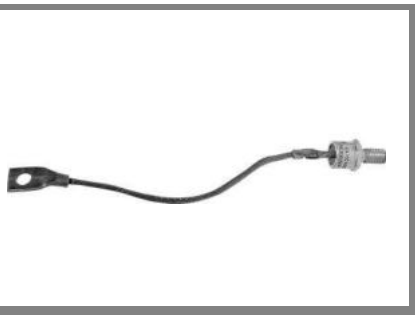
AbN automation



Stud Diode

Avalanche Diode

SKNa 20

Features

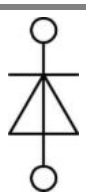
- Avalanche type reverse characteristic up to 1700
- Hermetic metal case with glass insulator
- Anode side threaded stud ISO M
- Cooling via metal plates or heat sinks
- SKN: Anode to stud

Typical Applications*

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

$V_{(BR)min}$	I_{FRMS} = 40 A (maximum value for continuous operation)	C_{max}	R_{min}
V	I_{FAV} = 20 A (sin. 180; T_c = 93 °C)	µF	Ω
1300	SKNa 20/13		
1700	SKNa 20/17		

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; T_c = 85 (100) °C	22 (18)	A
I_D	K 9; T_a = 45 °C; B2 / B6	17 / 24	A
	K 3; T_a = 45 °C; B2 / B6	30 / 42	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	375	A
	T_{vj} = 150 °C; 10 ms	320	A
i²t	T_{vj} = 25 °C; 8,3 ... 10 ms	700	A²s
	T_{vj} = 150 °C; 8,3 ... 10 ms	510	A²s
V_F	T_{vj} = 25 °C; I_F = 60 A	max. 1,55	V
$V_{(TO)}$	T_{vj} = 150 °C	max. 0,85	V
r_T	T_{vj} = 150 °C	max. 11	mΩ
I_{RD}	T_{vj} = 25 °C; V_{RD} = $V_{(BR)min}$	max. 10	µA
P_{RSM}	T_{vj} = 150 °C; t_p = 10 µs	6	kW
$R_{th(j-c)}$		2	K/W
$R_{th(c-s)}$		1	K/W
T_{vj}		- 40 ... + 150	°C
T_{stg}		- 55 ... + 180	°C
V_{isol}		-	V~
M_s		2	Nm
a		5 * 9,81	m/s²
m	approx.	11	g
Case		E 9	



SKN

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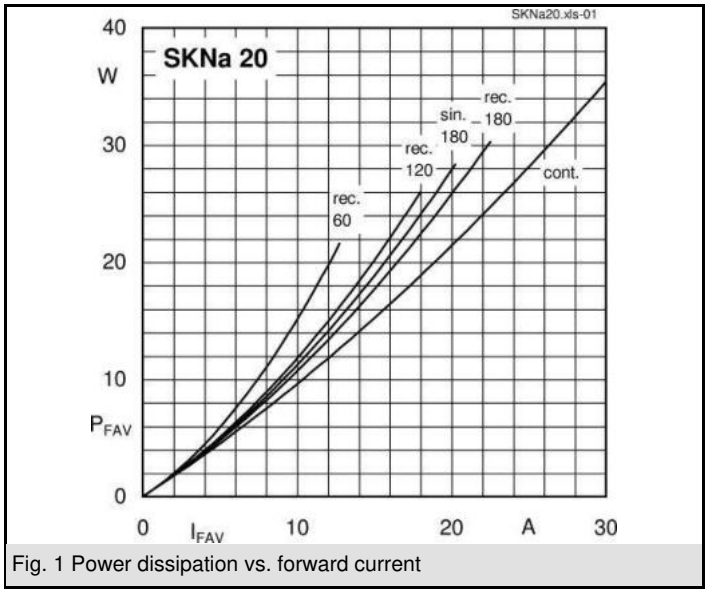

Fig. 1 Power dissipation vs. forward current

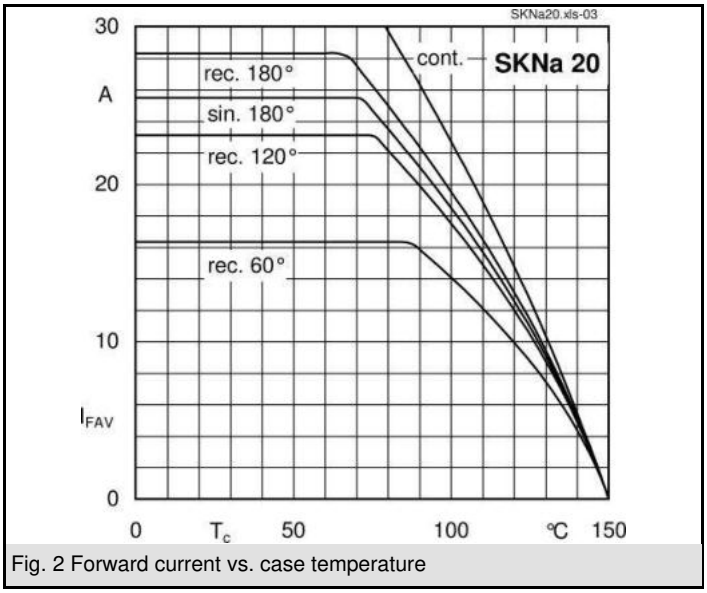

Fig. 2 Forward current vs. case temperature

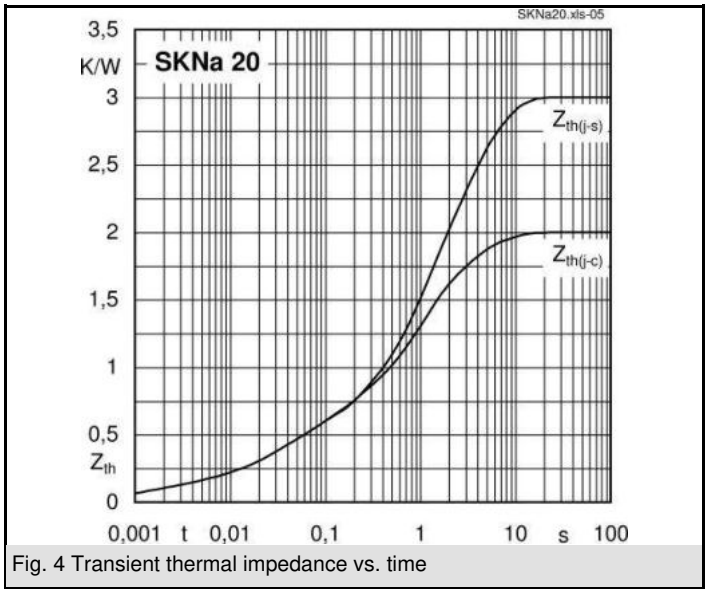

Fig. 4 Transient thermal impedance vs. time

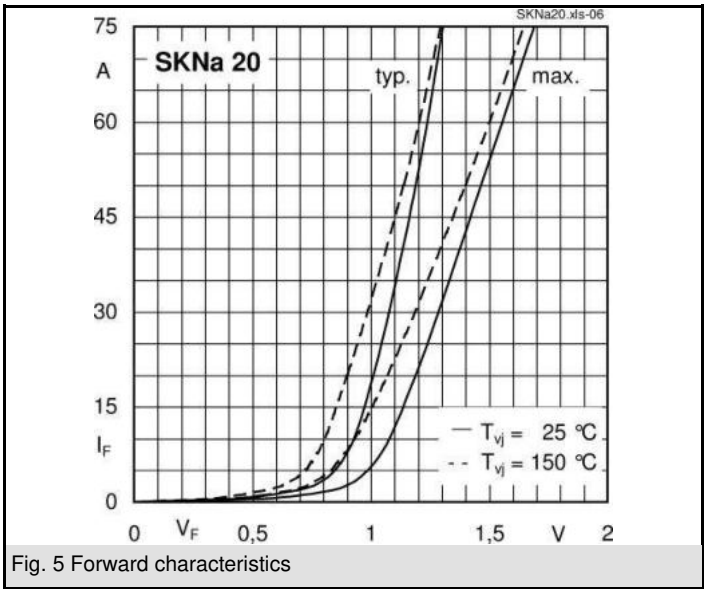

Fig. 5 Forward characteristics

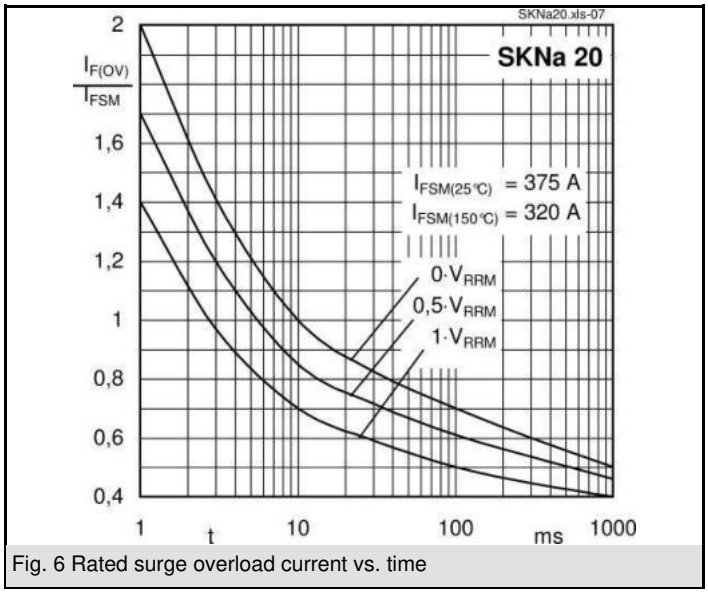

Fig. 6 Rated surge overload current vs. time

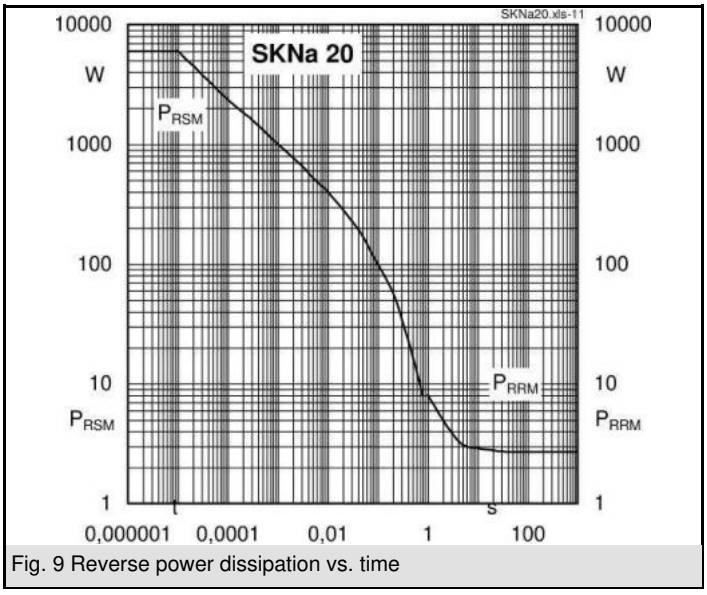

Fig. 9 Reverse power dissipation vs. time

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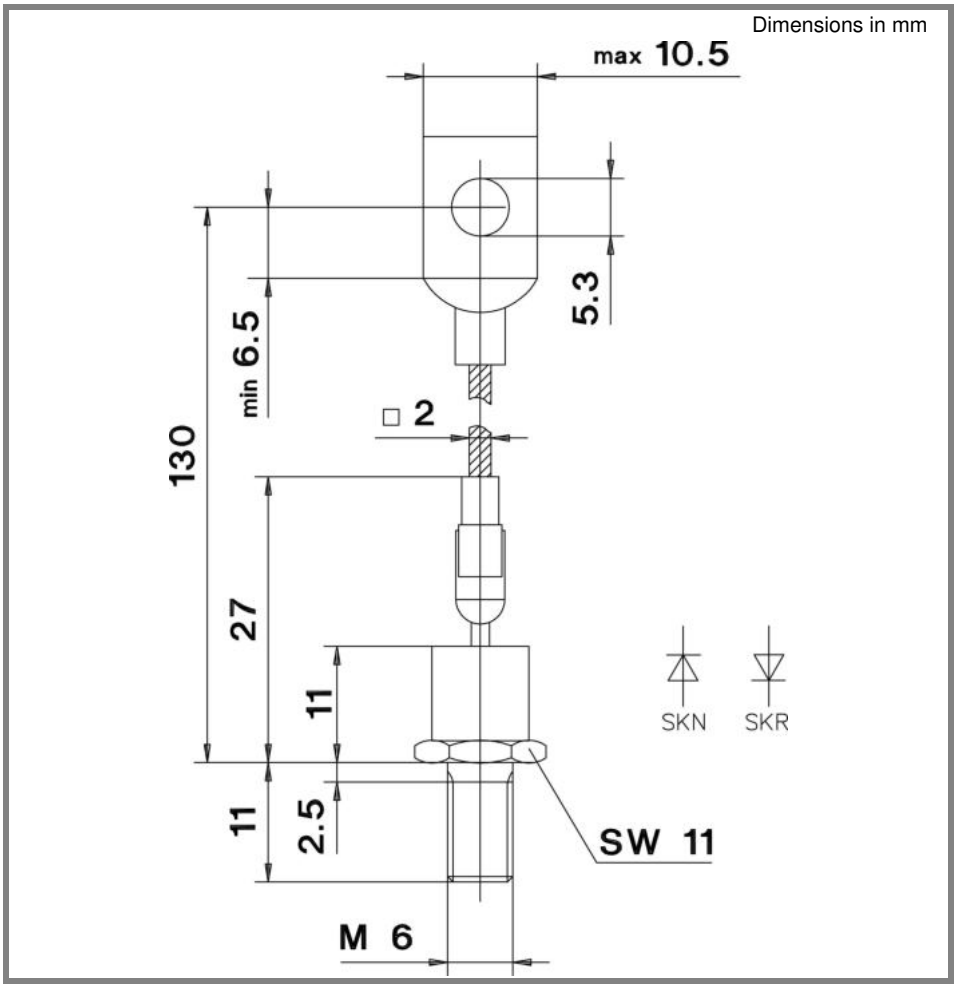

CASE E 9 (IEC 60191: A 16 M modified)

* 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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