SKNa 202

Stud Diode

Avalanche Diode

SKNa 202

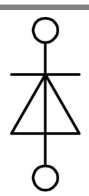
Publish Data

Features

- Avalanche type reverse characteristic
- Reverse voltages up to 5000 V
- Hermetic metal case with ceramic insulator and extra long creepage distances
- Threaded stud ISO M16 x 1,5
- Cooling via heatsinks
- SKN: Anode to stud

Typical Applications

- High voltage rectifier diode for traction and heavy duty applications
- Series connections for high voltage applications
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes



SKN

$V_{(BR)min}$	I_{FRMS} = 500 A (maximum value for continuous operation)	C_{max}	R_{min}
V	I_{FAV} = 200 A (sin. 180; T_c = 80 °C)	µF	Ω
3600	SKNa 202/36		
4000	SKNa 202/40		
4200	SKNa 202/42		
4500	SKNa 202/45		
4600	SKNa 202/46		
4800	SKNa 202/48		
5000	SKNa 202/50		

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180 ; T_c = 80 (100) °C	200 (165)	A
I_D	K 0,55; T_a = 45 °C; B2 / B6	208 / 296	A
	K 0,55F; T_a = 35 °C; B2 / B6	340 / 478	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	3800	A
	T_{vj} = 160 °C; 10 ms	3100	A
i²t	T_{vj} = 25 °C; 8,3 ... 10 ms	72000	A²s
	T_{vj} = 160 °C; 8,3 ... 10 ms	48000	A²s
V_F	T_{vj} = 25 °C; I_F = 600 A	max. 1,95	V
$V_{(TO)}$	T_{vj} = 150 °C	max. 1	V
r_T	T_{vj} = 150 °C	max. 2	mΩ
I_{RD}	T_{vj} = 25 °C; $V_{RD} = V_{(BR)min}$	max. 2000	µA
	T_{vj} = 160 °C; $V_{RD} = V_{(BR)min}$;	max. 35	mA
P_{RSM}	T_{vj} = 160 °C; t_p = 10 µs	60	kW
$R_{th(j-c)}$		0,2	K/W
$R_{th(c-s)}$		0,03	K/W
T_{vj}		- 40 ... + 160	°C
T_{stg}		- 40 ... + 160	°C
V_{isol}		-	V~
M_s	to heatsink	30	Nm
		270	lb.in.
a		5 * 9,81	m/s²
m	approx.	260	g
Case		E 45	

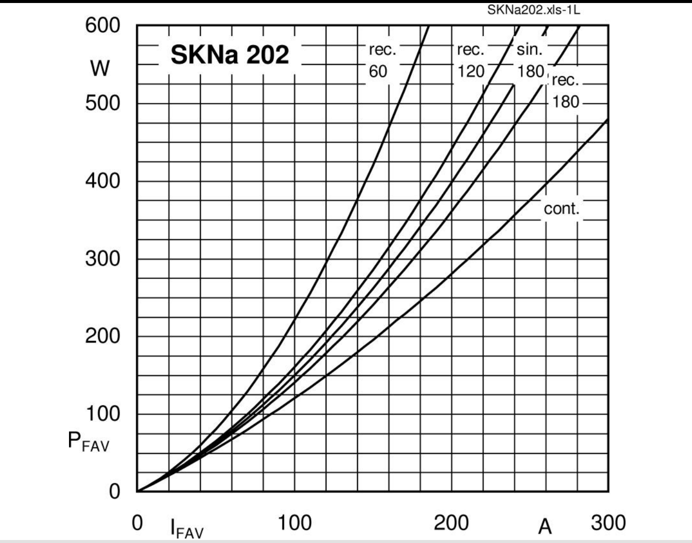


Fig. 1L Power dissipation vs. forward current

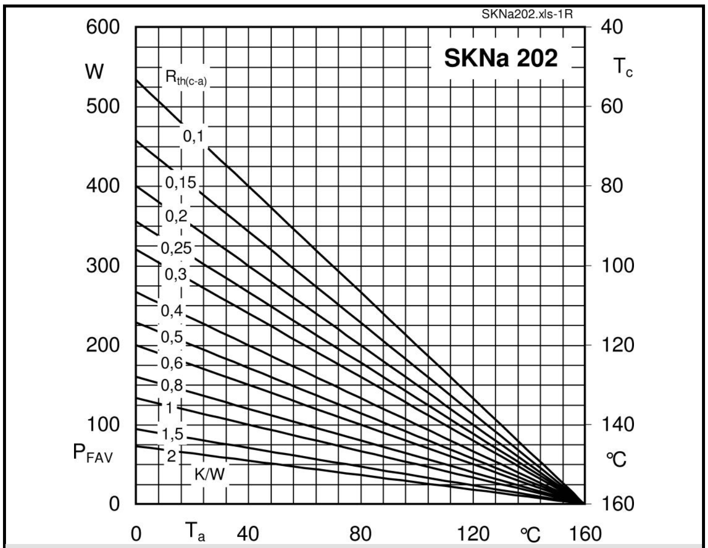


Fig. 1R Power dissipation vs. ambient temperature

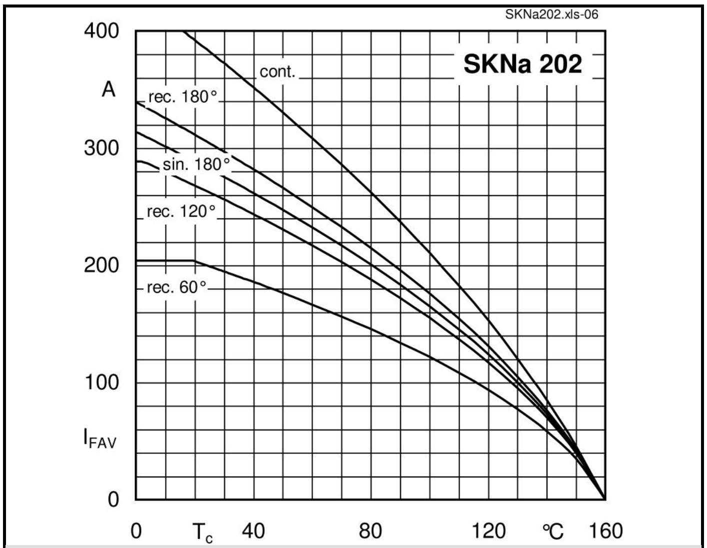


Fig. 2 Forward current vs. case temperature

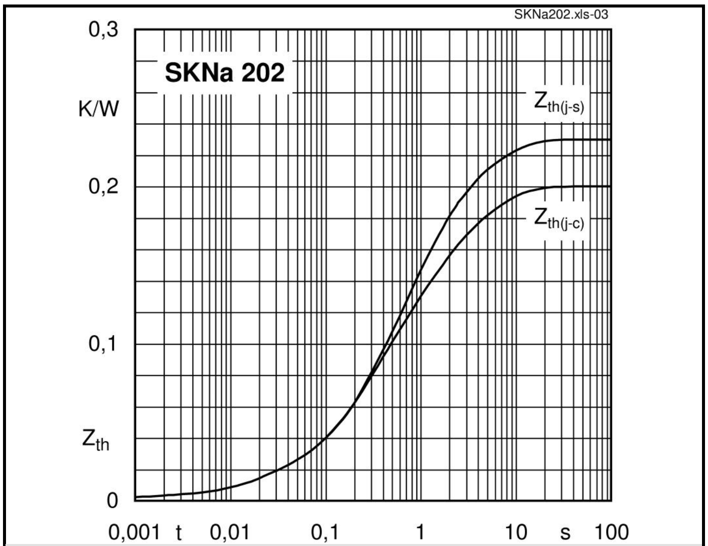


Fig. 4 Transient thermal impedance vs. time

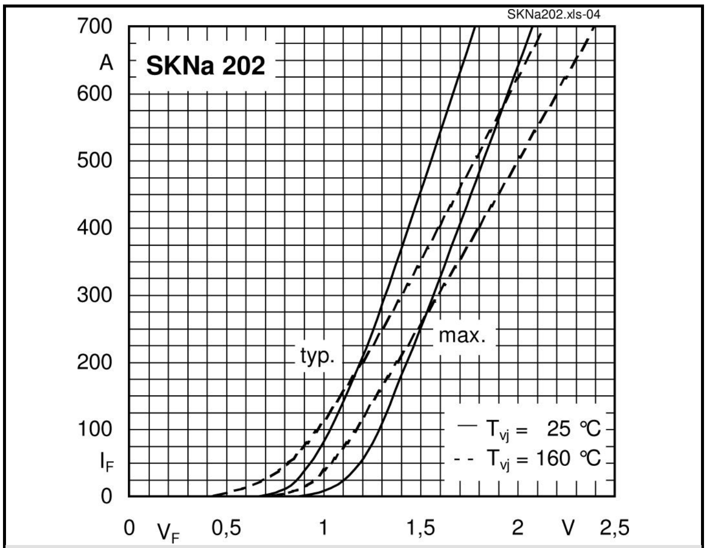


Fig. 5 Forward characteristics

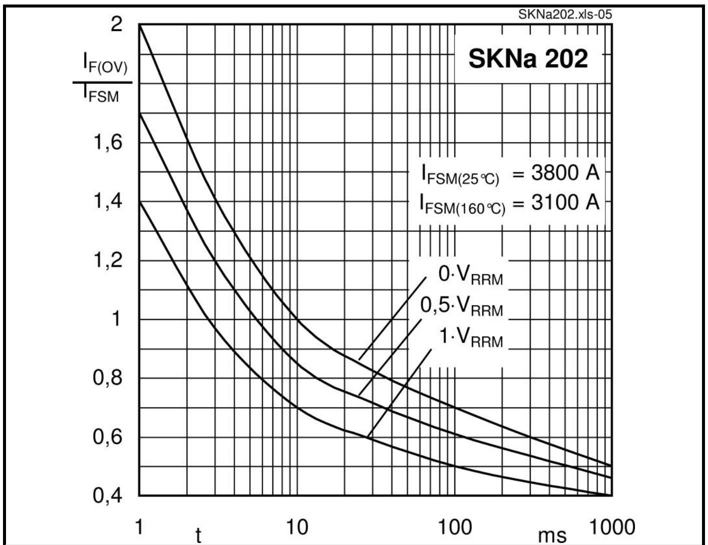
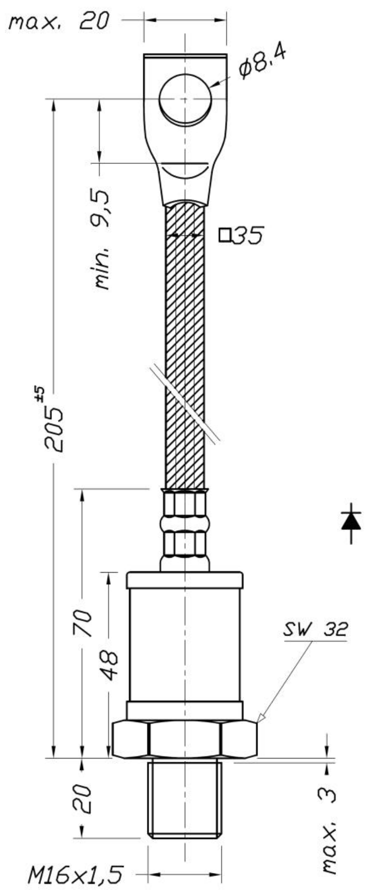


Fig. 6 Rated surge overload current vs. time

Dimensions in mm



CASE E 45 (IEC 60191: A 15 M modified)

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