SEMIKRON

V_{RSM} V_{RRM} V	I_{FRMS} (maximum values for continuous operation) 40 A I_{FAV} (sin. 180; T_{case} = 100 °C) 25 A			
200	**SKN 20/02**	**SKR 20/02**	**SKN 26/02**	**SKR 26/02***
400	**SKN 20/04**	**SKR 20/04**	**SKN 26/04**	**SKR 26/04***
800	**SKN 20/08**	**SKR 20/08**	**SKN 26/08**	**SKR 26/08***
1200	**SKN 20/12**	**SKR 20/12**	**SKN 26/12**	**SKR 26/12***
1400	**SKN 20/14**	**SKR 20/14**	**SKN 26/14**	**SKR 26/14***
1600	**SKN 20/16**	**SKR 20/16**	**SKN 26/16**	**SKR 26/16***
	Avalanche Types			
$V_{(BR)min}$ V	I_{FAV} = 25 A (T_{case} = 73 °C)			
1300	**SKNa 20/13**			
1700	**SKNa 20/17**			

Symbol	Conditions	SKN 20 SKR 20	SKNa 20	SKN 26 SKR 26
I_{FAV}	sin. 180; T_{case} = 93 °C = 100 °C = 125 °C	– 25 A 20 A	20 A 18 A 11 A	– 25 A 20 A
I_{FSM} i^2t P_{RSM}	T_{vj} = 25 °C; 10 ms T_{vj} = T_{vjmax}; 10 ms T_{vj} = 25 °C; 8,3 ... 10 ms T_{vj} = T_{vjmax}; 8,3 ... 10 ms T_{vj} > 250 °C, tp = 10 µs	 –	375 A 320 A 700 A^2s 510 A^2s 6 kW	 –
Q_{rr} I_R	T_{vj} = 160 °C; $-\frac{di_F}{dt} = 10\ \frac{A}{\mu s}$ T_{vj} = 25 °C; V_R = V_{RRM} V_R = $V_{(BR)min}$ T_{vj} = 180 °C; V_R = V_{RRM}	 0,3 mA – 4 mA	typ. 20 µC – 10 µA –	 0,3 mA – 4 mA
V_F $V_{(TO)}$ r_T	T_{vj} = 25 °C; I_F = 60 A; max. T_{vj} = T_{vjmax} T_{vj} = T_{vjmax}		 1,55 V 0,85 V 11 mΩ	
R_{thjc} R_{thch} T_{vjmin} T_{vjmax} T_{stg}		 180 °C	2 °C/W 1 °C/W – 40 °C 150 °C – 55 ... + 180 °C	 180 °C
M a w	SI units/US units approx.	 10 g	2,0 Nm/18 lb. in. 5 · 9,81 m/s^2	 8 g
RC R_p	P_R = 1 W P_R = 4 W		0,05 µF + 200 Ω 150 kΩ	
Case		E 9		E 8

Rectifier Diodes

SKN 20 SKR 20
SKNa 20
SKN 26 SKR 26

Features

- Reverse voltages up to 1600 V, Avalanche Types to 1700 V
- Hermetic metal cases with glass insulators
- Threaded studs ISO M6 (SKR 26 also 10 – 32 UNF)
- **SKN**: anode to stud
  SKR: cathode to stud

Typical Applications

- All-purpose mean power rectifier diodes
- Cooling via metal plates or heatsinks
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes

Avalanche Types

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

* available with UNF thread 10 – 32 UNF 2 A; e.g. SKR 26/02 UNF

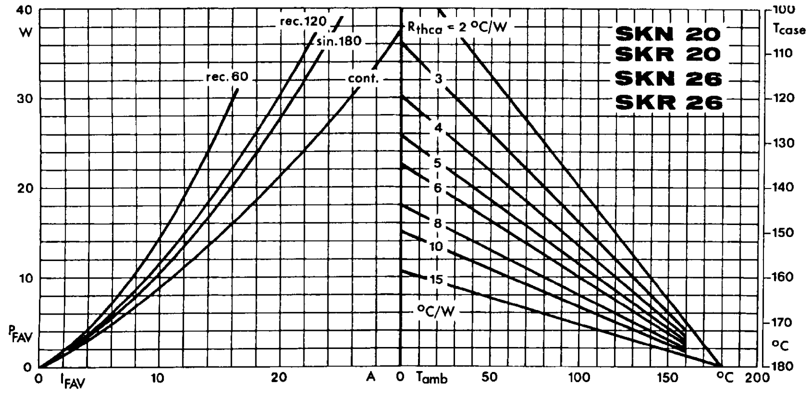


Fig. 1a Power dissipation vs. forward current and case temperature

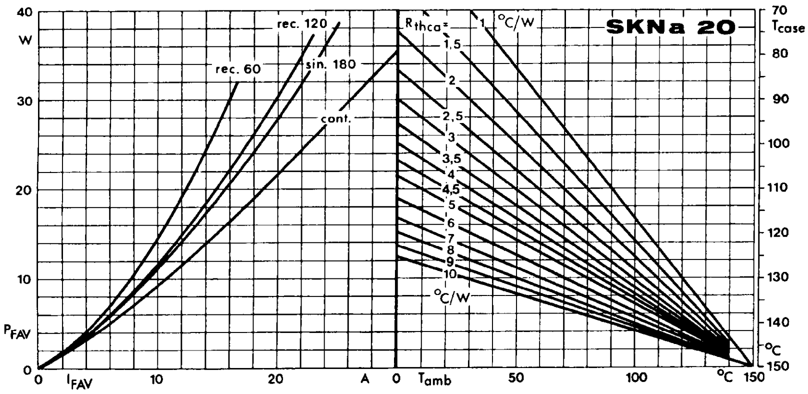


Fig. 1b Power dissipation vs. forward current and case temperature

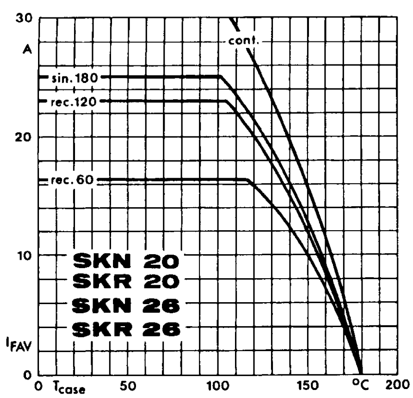


Fig. 3a Rated forward current vs. case temperature

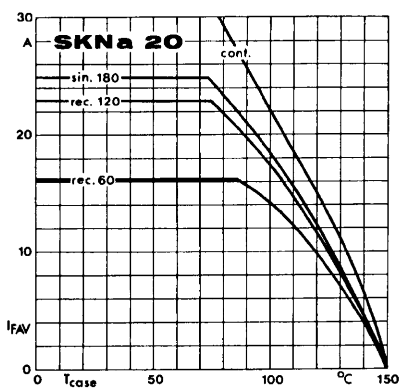


Fig. 3 b Rated forward current vs. case temperature

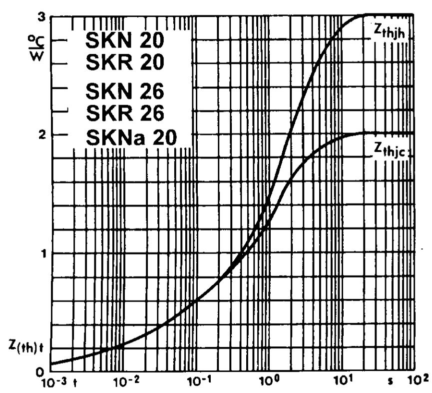


Fig. 5 Transient thermal impedance vs. time

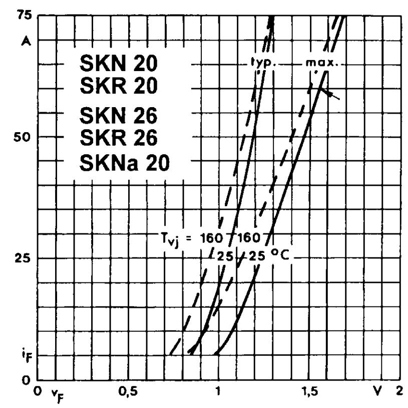


Fig. 6 Forward characteristics

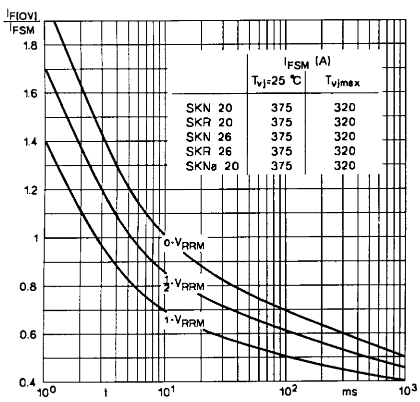


Fig. 7 Surge overload current vs. time

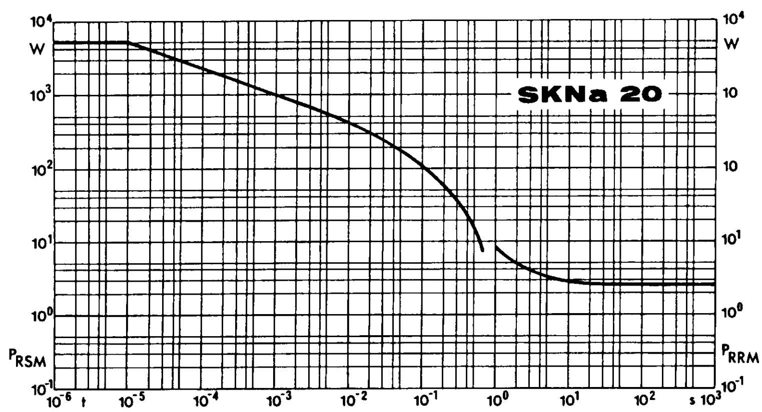
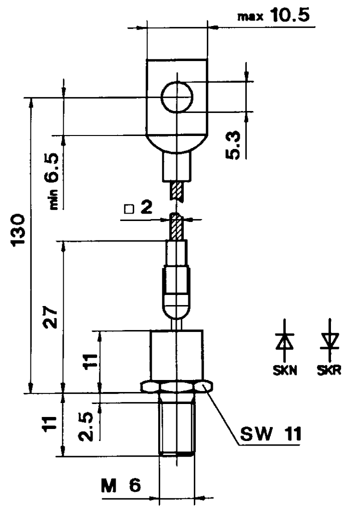


Fig. 11 Rated reverse power dissipation vs. time

SKN 20
SKR 20
SKNa 20

Case E 9

IEC: A 16 M*
DIN 41 886: 102 A 2
BS 3934: SO-31



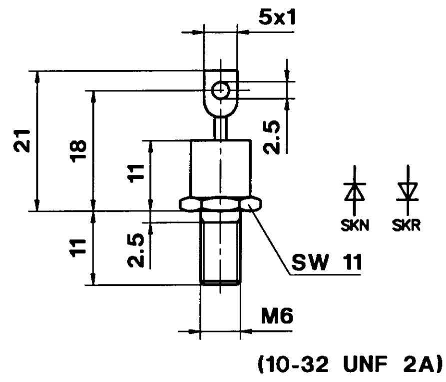
modified

Dimensions in mm

SKN 26
SKR 26

Case E 8

IEC: A 4 M*, A 3 U
DIN 41 886: 102 D 2*
BS 3934: SO-10
JEDEC: DO-203 AA
(DO-4)



* modified

Dimensions in mm