

Rectifier Diodes

SKN 20 SKR 20
SKNa 20 SKR 26
SKN 26 SKR 26

V _{RRM} V _{RRM}	IFRMS (maximum values for continuous operation) 40 A			
	I _{FAV} (sin. 180; T _{case} = 100 °C) 25 A			
V				
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 ² 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; t _p = 10 μs		375 A 320 A 700 A ² s 510 A ² s	
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}			2 °C/W 1 °C/W – 40 °C 180 °C 150 °C 180 °C – 55 ... + 180 °C	
M a w	SI units/US units approx.		2,0 Nm/18 lb. in. 5 · 9,81 m/s ² 10 g	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



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

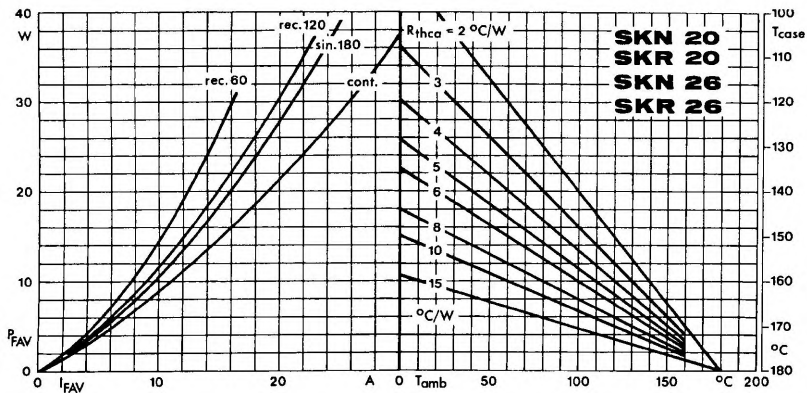


Fig. 1a Power dissipation vs. forward current and case temperature

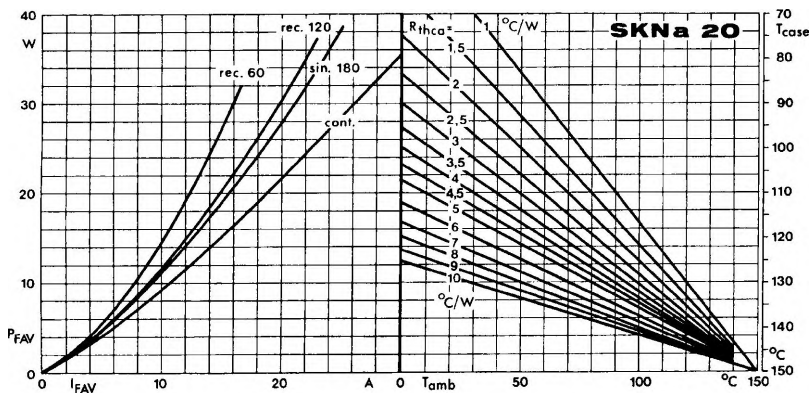


Fig. 1b Power dissipation vs. forward current and case temperature

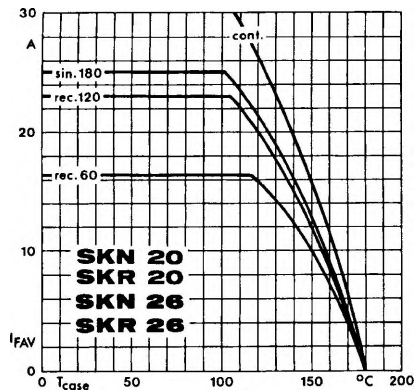


Fig. 3a Rated forward current vs. case temperature

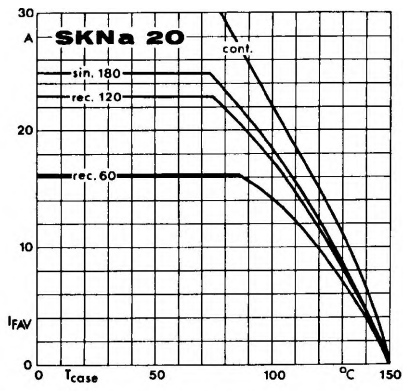


Fig. 3b Rated forward current vs. case temperature

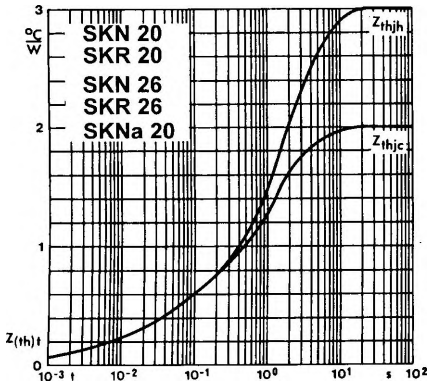


Fig. 5 Transient thermal impedance vs. time

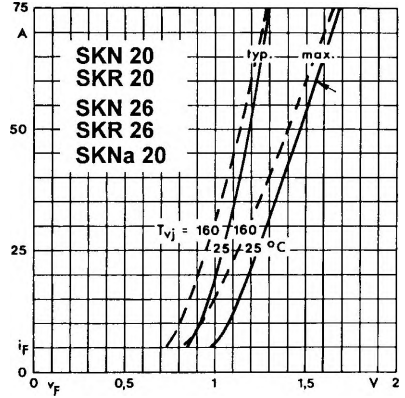


Fig. 6 Forward characteristics

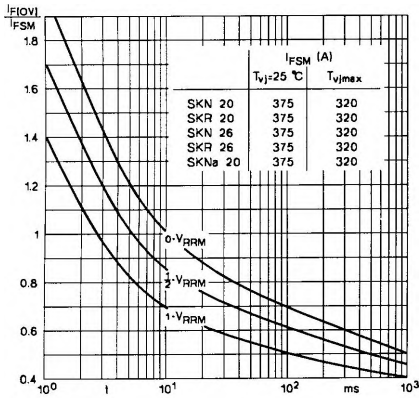


Fig. 7 Surge overload current vs. time

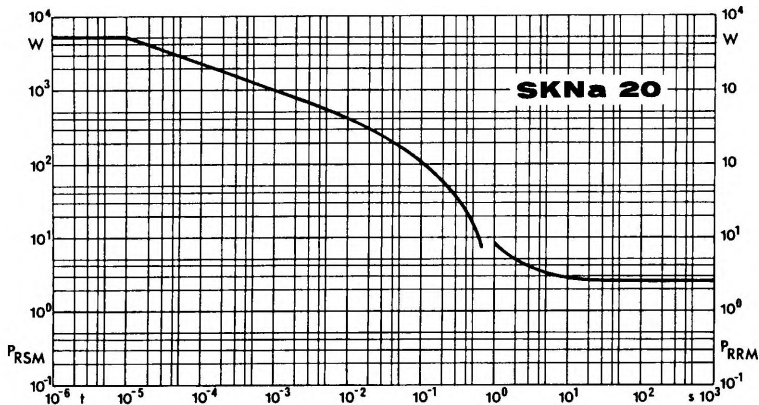


Fig. 11 Rated reverse power dissipation vs. time

