

## Rectifier Diodes

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

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

Symbol	Conditions	SKN 20 SKR 20	SKNa 20	SKN 26 SKR 26
I <sub>FAV</sub>	sin. 180; T <sub>case</sub> = 93 °C = 100 °C = 125 °C	– 25 A 20 A	20 A 18 A 11 A	– 25 A 20 A
I <sub>FSM</sub>	T <sub>vj</sub> = 25 °C; 10 ms T <sub>vj</sub> = T <sub>vjmax</sub> ; 10 ms		375 A 320 A	
i <sup>2</sup> t	T <sub>vj</sub> = 25 °C; 8,3 ... 10 ms T <sub>vj</sub> = T <sub>vjmax</sub> ; 8,3 ... 10 ms		700 A <sup>2</sup> s 510 A <sup>2</sup> s	
P <sub>RSM</sub>	T <sub>vj</sub> > 250 °C; t <sub>p</sub> = 10 μs	–	6 kW	–
Q <sub>rr</sub>	T <sub>vj</sub> = 160 °C; $-\frac{di_F}{dt} = 10 \frac{A}{\mu s}$		typ. 20 μC	
I <sub>R</sub>	T <sub>vj</sub> = 25 °C; V <sub>R</sub> = V <sub>RRM</sub> V <sub>R</sub> = V <sub>(BR)min</sub> T <sub>vj</sub> = 180 °C; V <sub>R</sub> = V <sub>RRM</sub>	0,3 mA – 4 mA	– 10 μA –	0,3 mA – 4 mA
V <sub>F</sub>	T <sub>vj</sub> = 25 °C; I <sub>F</sub> = 60 A; max.		1,55 V	
V <sub>(TO)</sub>	T <sub>vj</sub> = T <sub>vjmax</sub>		0,85 V	
r <sub>T</sub>	T <sub>vj</sub> = T <sub>vjmax</sub>		11 mΩ	
R <sub>thjc</sub> R <sub>thch</sub> T <sub>vjmin</sub> T <sub>vjmax</sub> T <sub>stg</sub>			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 <sup>2</sup> 10 g	8 g
RC R <sub>p</sub>	P <sub>R</sub> = 1 W P <sub>R</sub> = 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

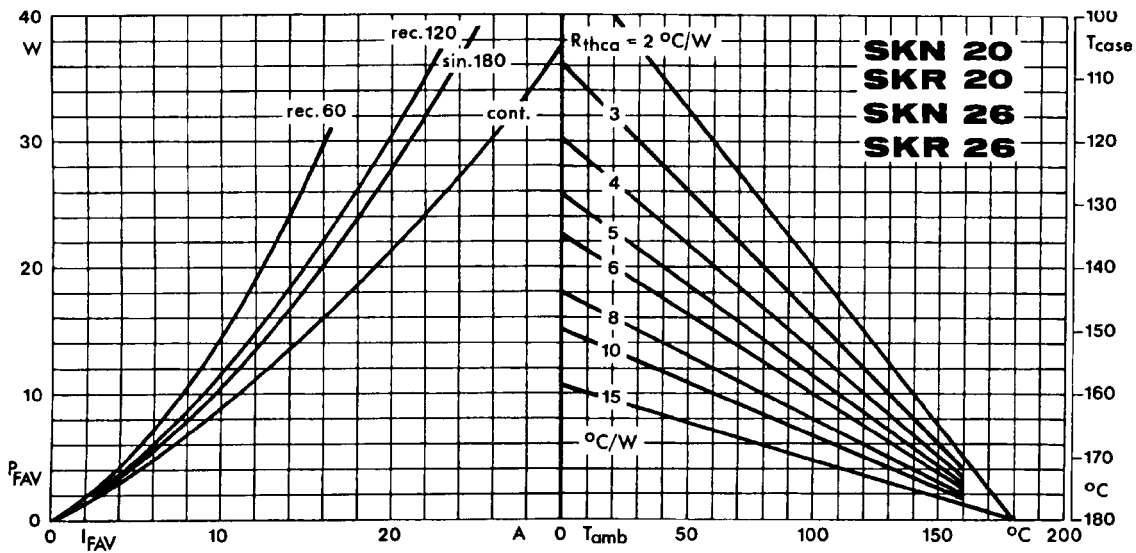


Fig. 1a Power dissipation vs. forward current and case temperature

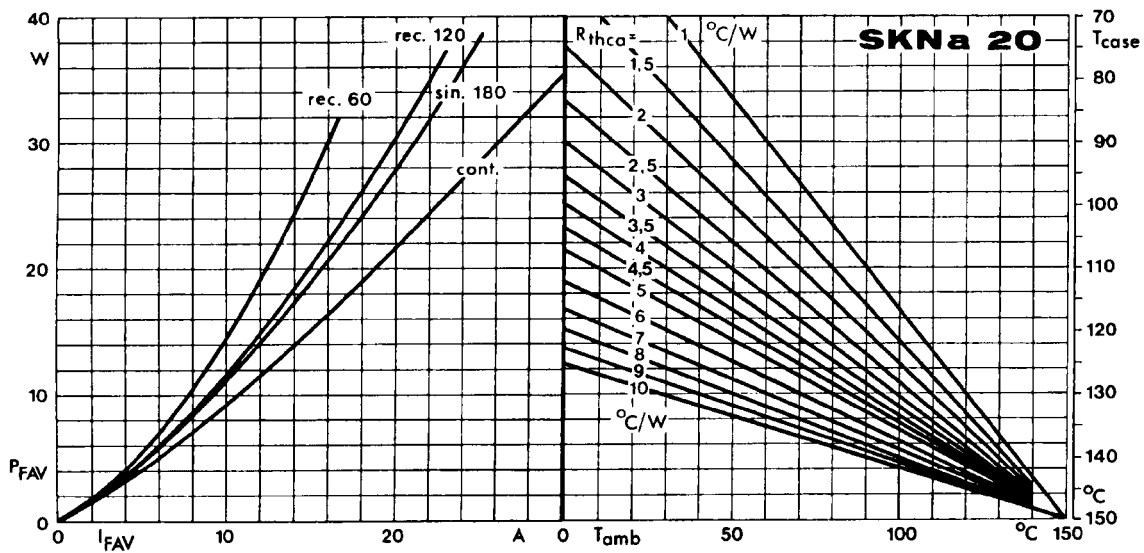


Fig. 1b Power dissipation vs. forward current and case temperature

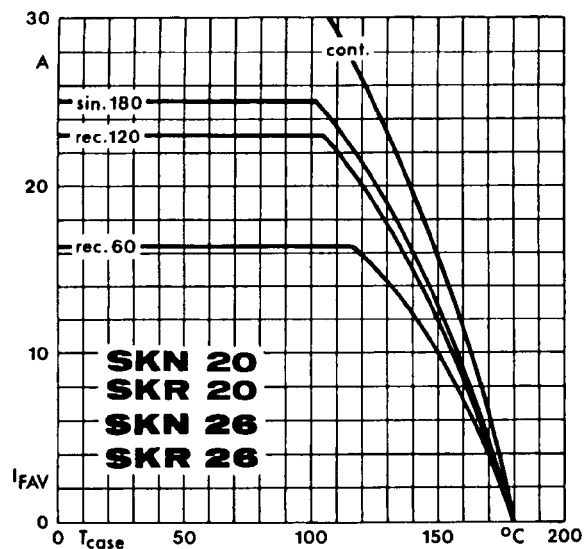


Fig. 3a Rated forward current vs. case temperature

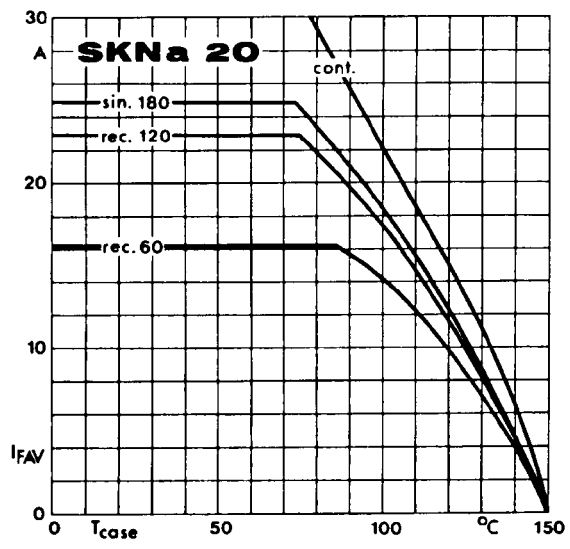


Fig. 3 b Rated forward current vs. case temperature

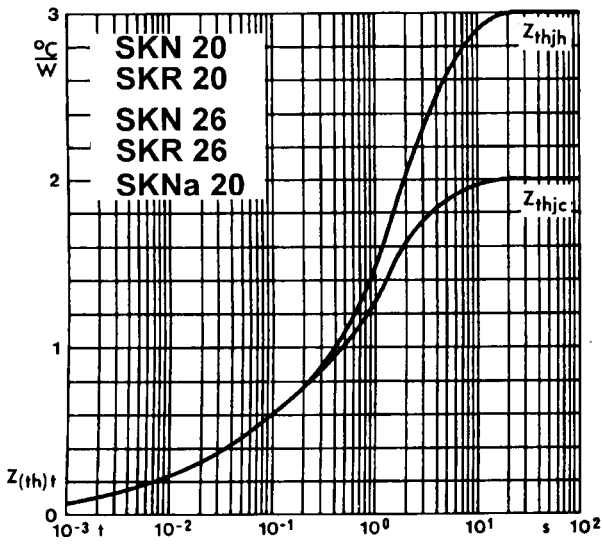


Fig. 5 Transient thermal impedance vs. time

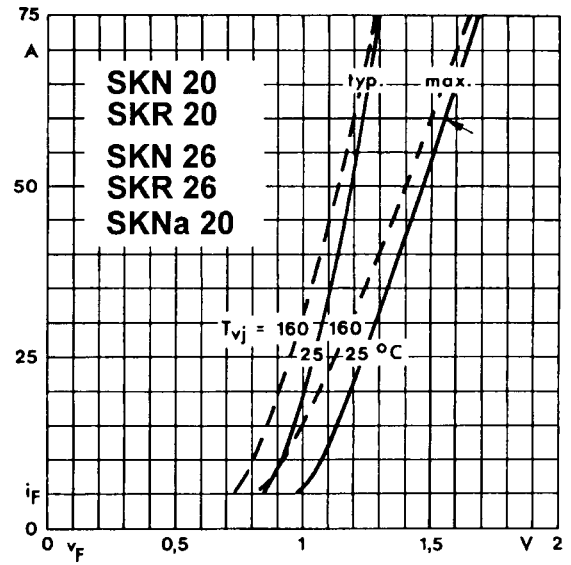


Fig. 6 Forward characteristics

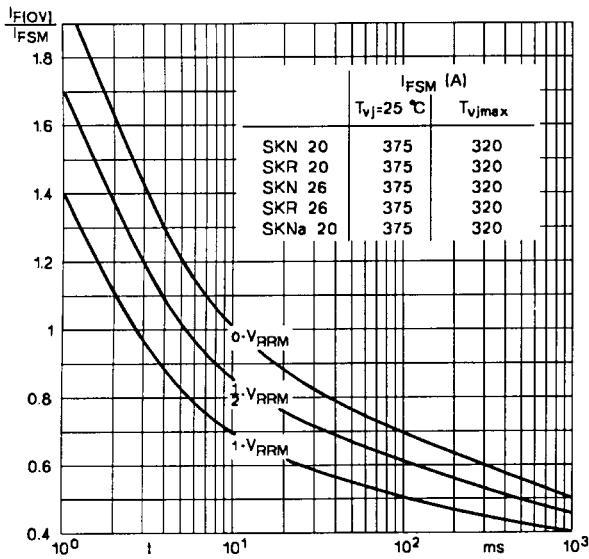


Fig. 7 Surge overload current vs. time

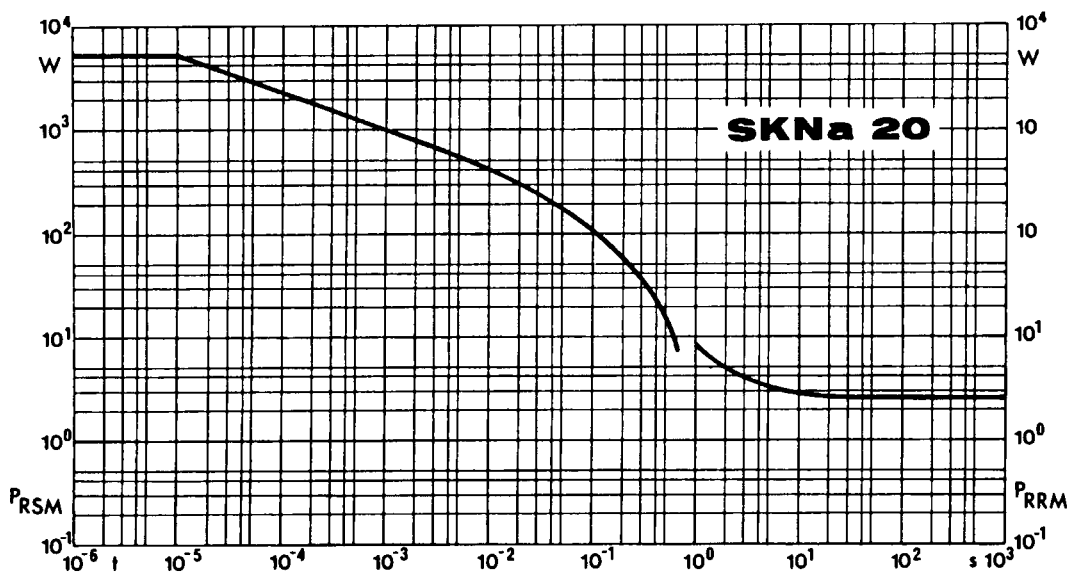


Fig. 11 Rated reverse power dissipation vs. time

