Rectifier Diodes

SKN 20 SKR 20
SKNa 20
SKN 26 SKR 26

V_{RSM} V_{RRM}	I_{FRMS} (maximum values for continuous operations) 40 A			
	I_{FAV} (sin. 180; T_{case} = 100 °C) 25 A			
V				
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	Units
I_{FAV}	sin. 180; T_{case} = 73 °C	–	20	–	A
	= 100 °C	25	18	25	A
	= 125 °C	20	11	20	A
I_{FSM}	T_{vj} = 25 °C; 10 ms		375		A
	T_{vj} = T_{vjmax}; 10 ms		320		A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms		700		A^2s
	T_{vj} = T_{vjmax}; 8,3 ... 10 ms		510		A^2s
P_{RSM}	T_{vj} > 250 °C, t_p = 10 µs	–	6	–	kW
Q_{rr}	T_{vj} = 160 °C; – di_F/dt = 10 A/µs		typ. 20		µC
I_R	T_{vj} = 25 °C; V_R = V_{RRM}	0,3	–	0,3	mA
	V_R = $V_{(BR)min}$	–	10	–	µA
	T_{vj} = 180 °C; V_R = V_{RRM}	4	–	4	mA
V_F	T_{vj} = 25 °C; I_F = 60 A; max.		1,55		V
$V_{(TO)}$	T_{vj} = T_{vjmax}		0,85		V
r_T	T_{vj} = T_{vjmax}		11		mΩ
R_{thjc}			2		°C/W
R_{thch}			1		°C/W
T_{vjmin}			– 40		°C
T_{vjmax}		180	150	180	°C
T_{stg}			– 55 ... + 180		°C
M	SI units		2,0		Nm
	US units		18		lb.in.
a			5 · 9,81		m/s^2
w	approx.		10	8	g
RC	P_R = 1 W		0,05		µF
			200		Ω
R_p	P_R = 4 W		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 26/12 UNF

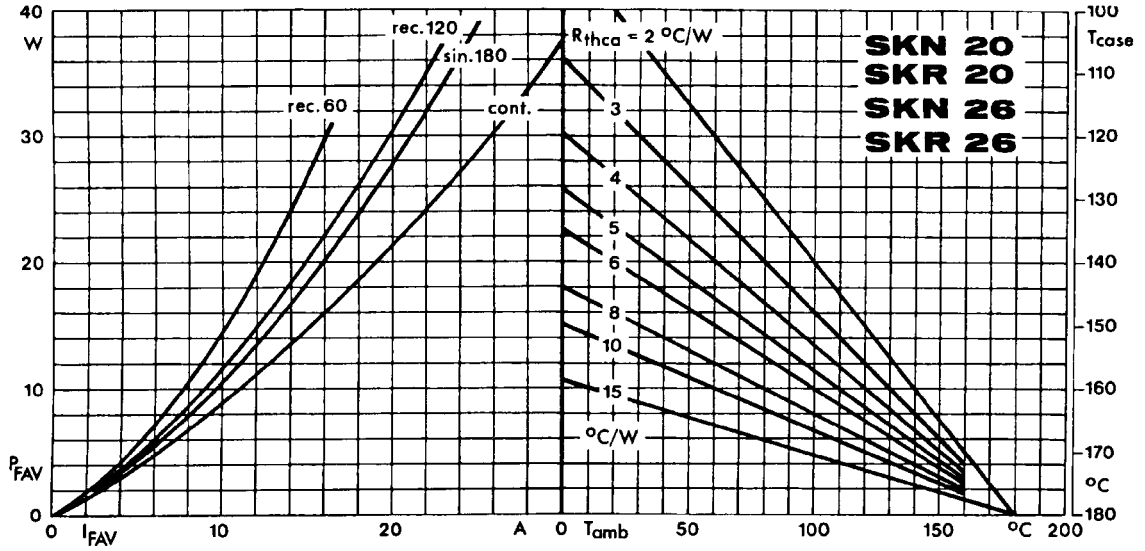


Fig. 1a Power dissipation vs. forward current and case temperature

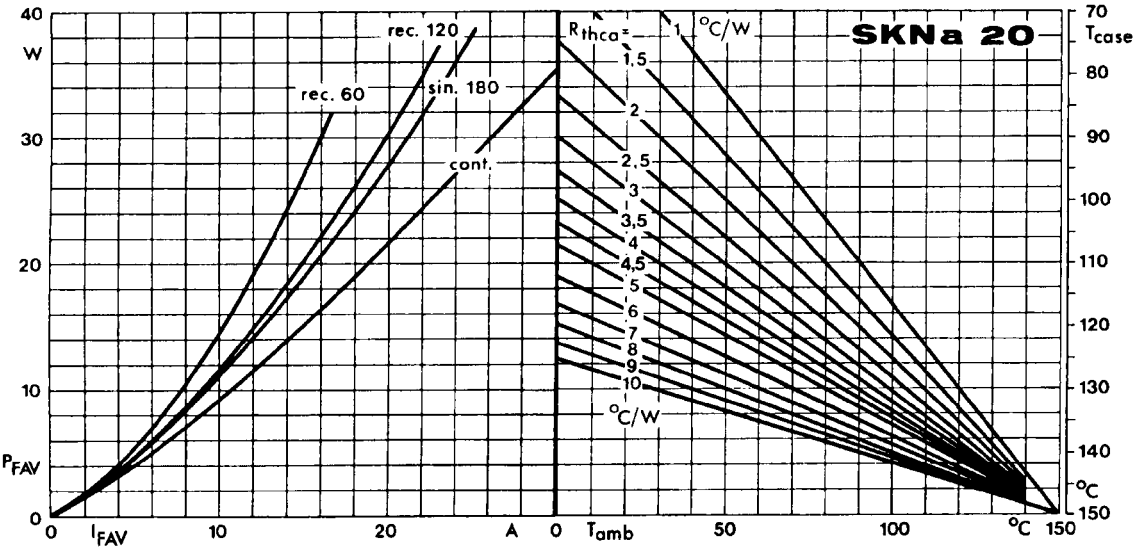


Fig. 1b Power dissipation vs. forward current and case temperature

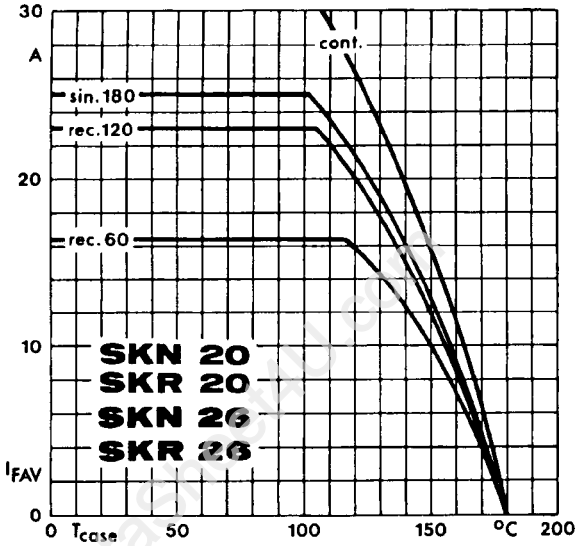


Fig. 3a Rated forward current vs. case temperature

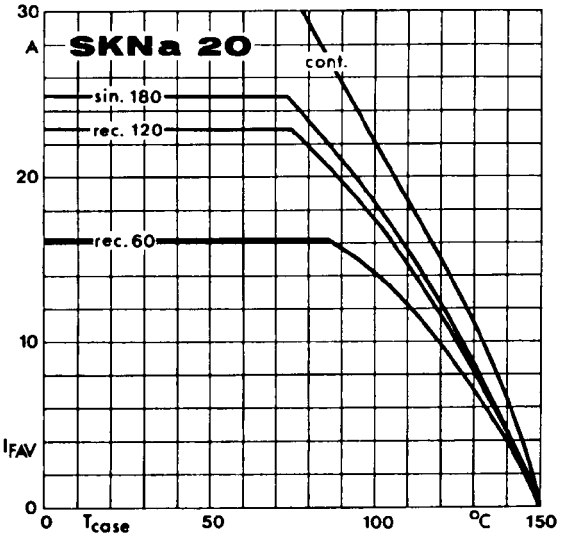


Fig. 3 b Rated forward current vs. case temperature

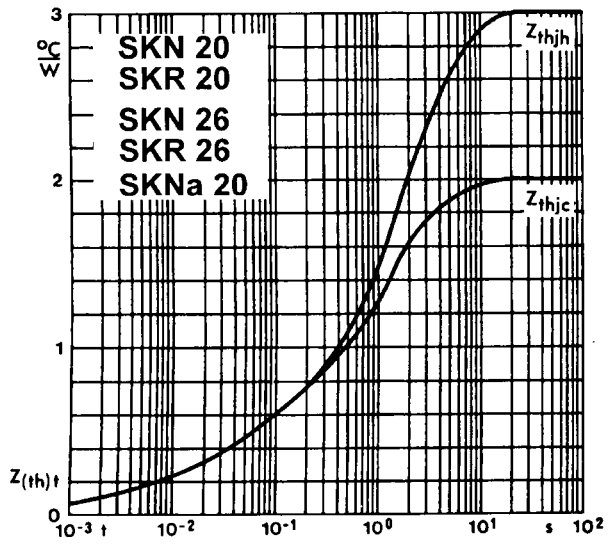


Fig. 5 Transient thermal impedance vs. time

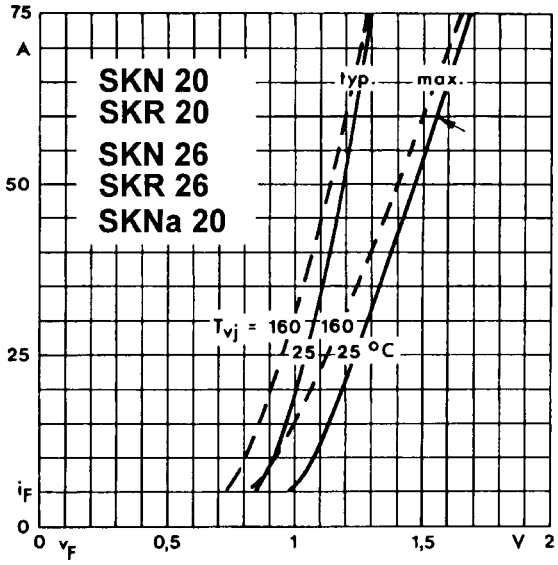


Fig. 6 Forward characteristics

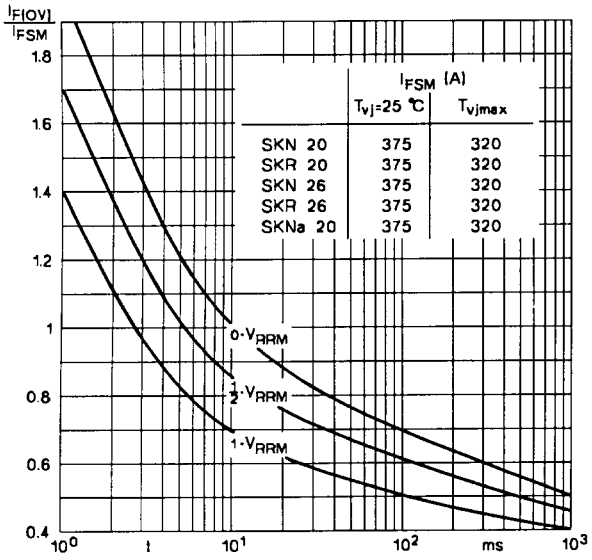


Fig. 7 Surge overload current vs. time

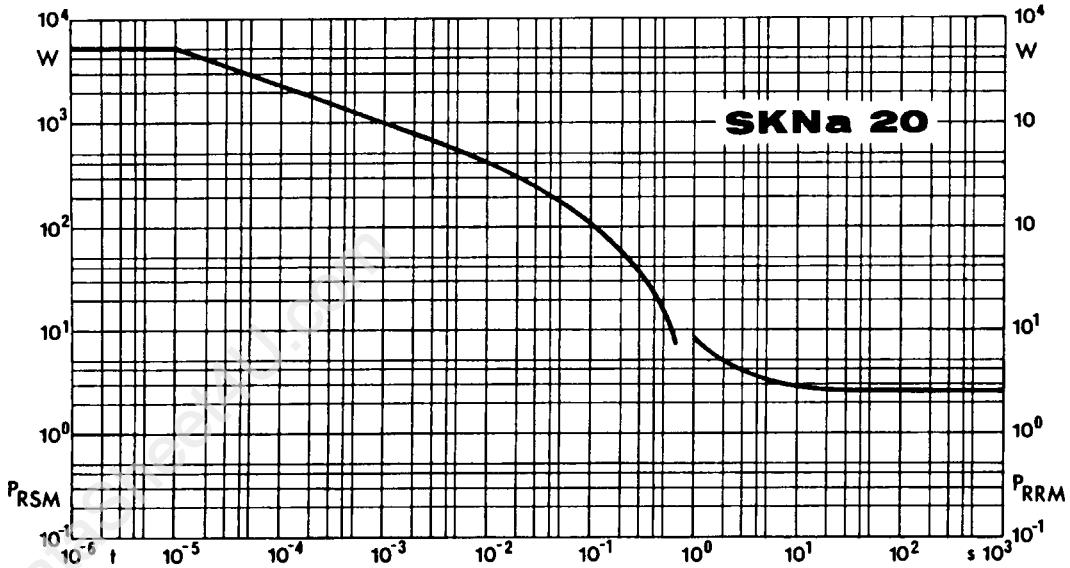
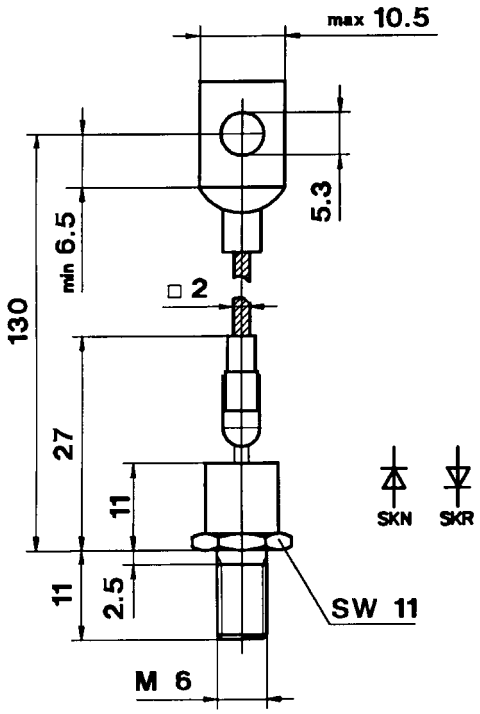


Fig. 11 Rated reverse power dissipation vs. time

SKN 20
SKR 20
SKNa 20

Case E 9

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



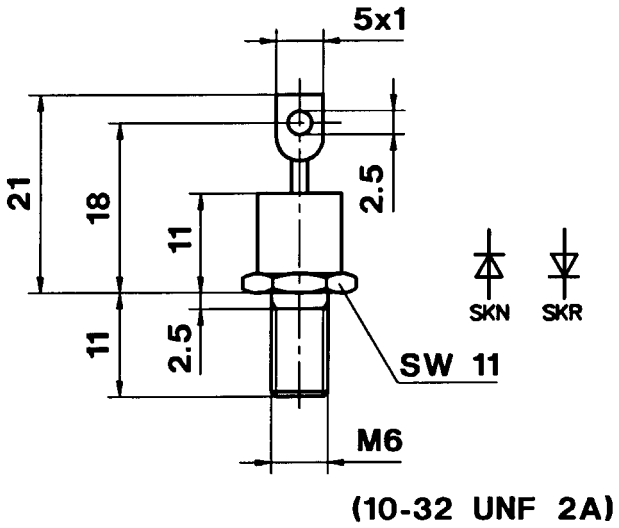
modified

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