

SKN 94, SKR 94



Stud Diode

Rectifier Diode

SKN 94
SKR 94

Features

- Low power dissipation
- Reverse voltages up to 1200 V
- Hermetic metal cases with glass insulator
- Optional silicone sleeve
- Threaded studs ISO M8 or 1/4" 28 UNF-2A
- **SKN**: anode to stud
- **SKR**: cathode to stud

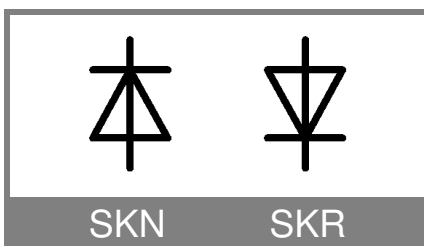
Typical Applications

- All purpose mean power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:
RC: 0,1 μ F, 100 Ω ($P_R = 2W$),
 R_D : 80 K Ω ($P_R = 6 W$)

Note: for UNF thread versions add an UNF at the description's end. (e.g. SKR 94/04 UNF)

V_{RSM} V	V_{RRM} V	$I_{FRMS} = 150 A$ (maximum value for continuous operation) $I_{FAV} = 95 A$ (sin. 180; $T_c = 142^\circ C$)	
200	200	SKN 94/02	SKR 94/02
400	400	SKN 94/04	SKR 94/04
800	600	SKN 94/08	SKR 94/08
1200	1200	SKN 94/12	SKR 94/12

Symbol	Condition	Values	Units
I_{FAV}	sin. 180 ; $T_c = 142^\circ C$; $T_c = 150^\circ C$	95 80	A A
I_{FSM}	$T_{vj} = 25^\circ C$; 10 ms $T_{vj} = 180^\circ C$; 10 ms	2000 1700	A A
i^2t	$T_{vj} = 25^\circ C$; 8,3...10 ms $T_{vj} = 180^\circ C$; 8,3...10 ms	200000 144000	A^2s A^2s
V_F	$T_{vj} = 25^\circ C$, $I_F = 300 A$	Max. 1,2	V
$V_{(TO)}$	$T_{vj} = 180^\circ C$	0,8	V
r_T	$T_{vj} = 180^\circ C$	1,4	m Ω
I_R	$T_{vj} = 25^\circ C$; $V_R = V_{RRM}$ $T_{vj} = 180^\circ C$; $V_R = V_{RRM}$	0,6 10	mA mA
Q_{rr}	$T_{vj} = 160^\circ C$, $-di_F/dt = 10 A/\mu s$	typ. 80	μC
R_{thjc}		0,35	$^\circ C/W$
R_{thch}		0,2	$^\circ C/W$
T_{vj}		-40...+180	$^\circ C$
T_{stg}		-55...+180	$^\circ C$
M	M8 SI US units 1/4" 28 UNF-2A SI US units	4 35 2,5 22	Nm lb.in Nm lb.in
a		5 * 9,81	m/s ²
m	approx.	34	g
Case		E12a	



SKN

SKR

SKN 94, SKR 94

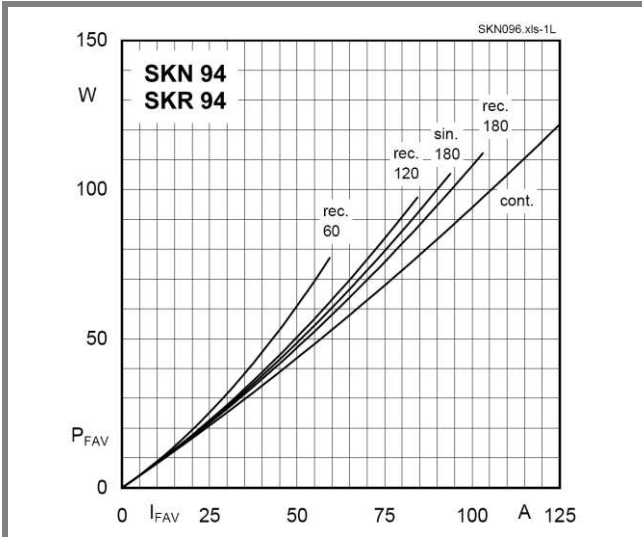


Fig. 1L Power dissipation vs. forward current

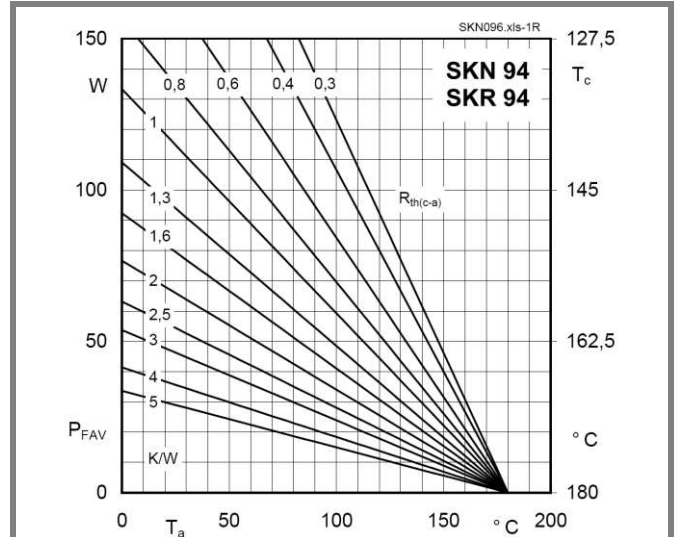


Fig. 1R Power dissipation vs. ambient temperature

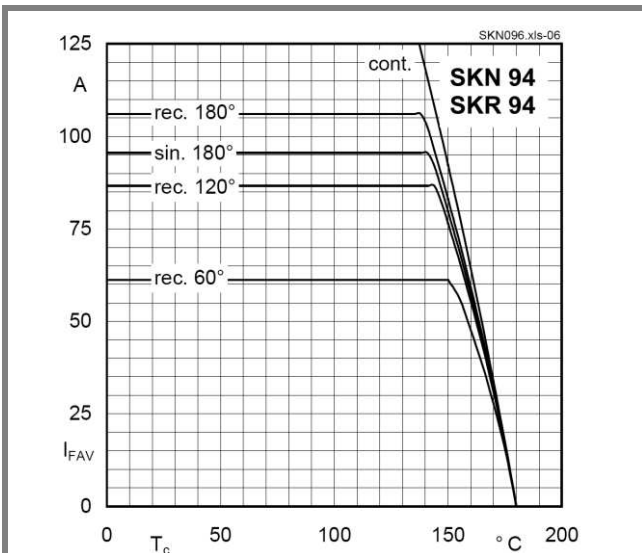


Fig. 2 Forward current vs. case temperature

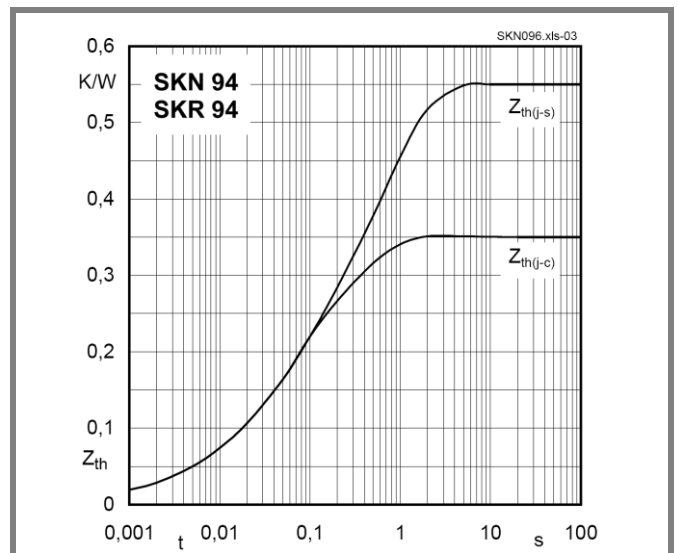


Fig. 4 Transient thermal impedance vs. time

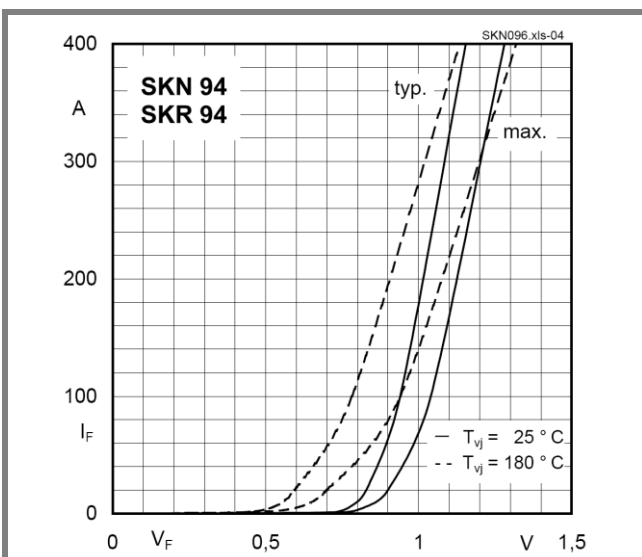


Fig. 5 Forward characteristics

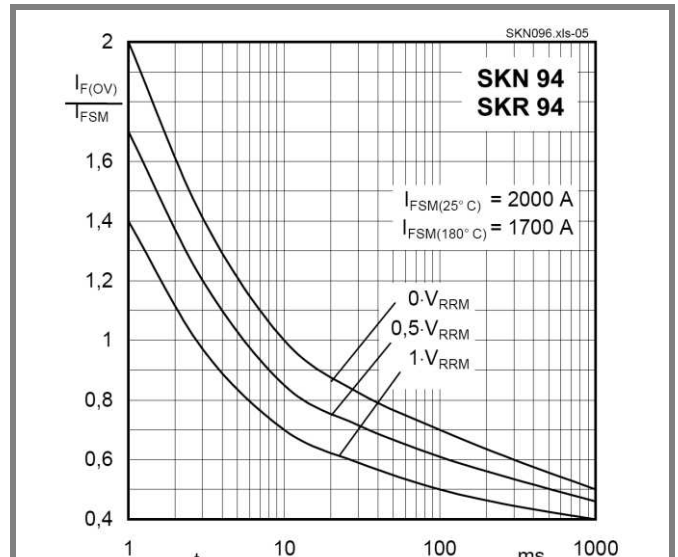
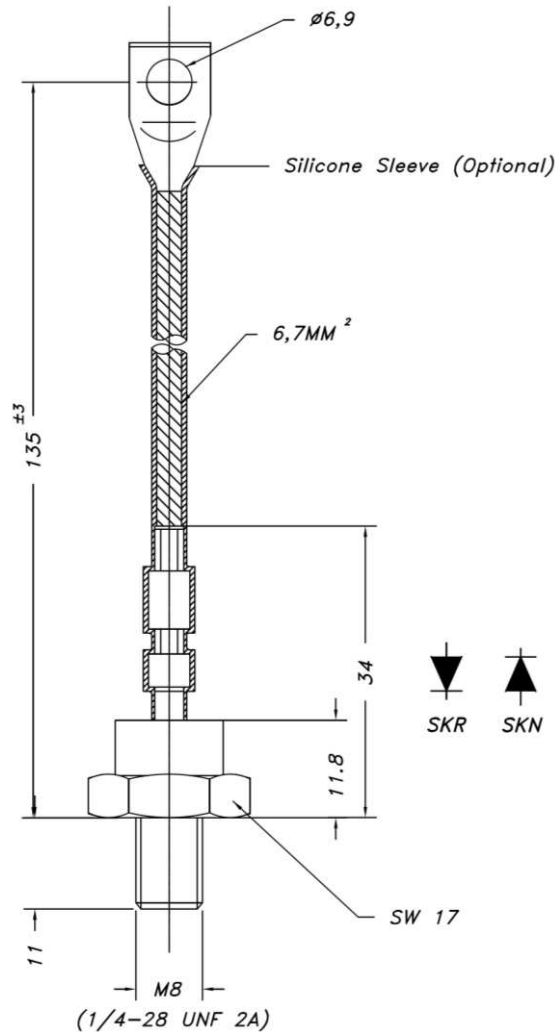


Fig. 6 Surge overload current vs. time



Case E 12a (IEC 60191: A 16 U, A 17 MB 2; JEDEC: SO-32 A, SO-32 B)

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