

# SKN 94, SKR 94



Stud Diode

$V_{RSM}$ V	$V_{RRM}$ V	$I_{FRMS} = 150$ A (maximum value for continuous operation) $I_{FAV} = 95$ A (sin. 180; $T_c = 142$ °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

## 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  $\mu$ F, 100  $\Omega$  ( $P_R = 2$ W),  
 $R_D$ : 80 K $\Omega$  ( $P_R = 6$  W)

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

Symbol	Condition	Values	Units
$I_{FAV}$	sin. 180 ; $T_C = 142$ °C ; $T_C = 150$ °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 <sup>2</sup> s A <sup>2</sup> s
$V_F$	$T_{vj} = 25^\circ$ 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 $\Omega$
$I_R$	$T_{vj} = 25^\circ$ 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	$\mu$ C
$R_{thjc}$		0,35	$^\circ$ C/W
$R_{thch}$		0,2	$^\circ$ C/W
$T_{vi}$		-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 <sup>2</sup>
m	approx.	34	g
Case		E12a	



SKN



SKR

# SKN 94, SKR 94

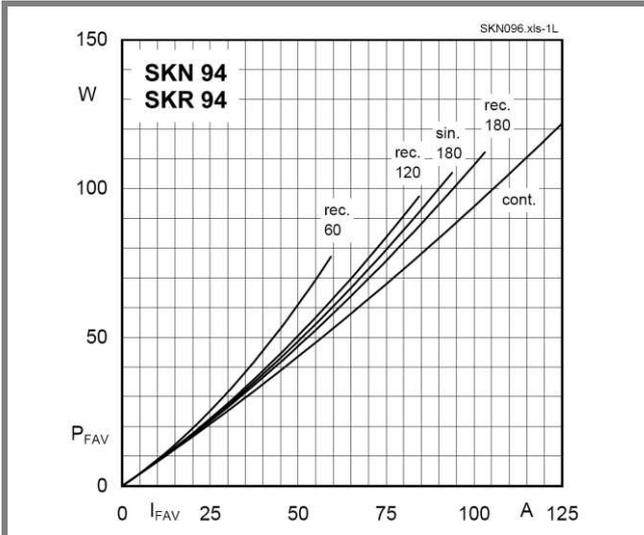


Fig. 1L Power dissipation vs. forward current

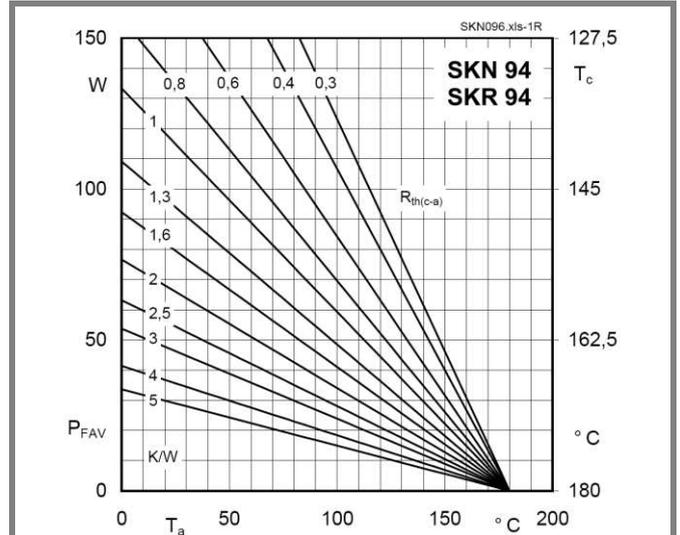


Fig. 1R Power dissipation vs. ambient temperature

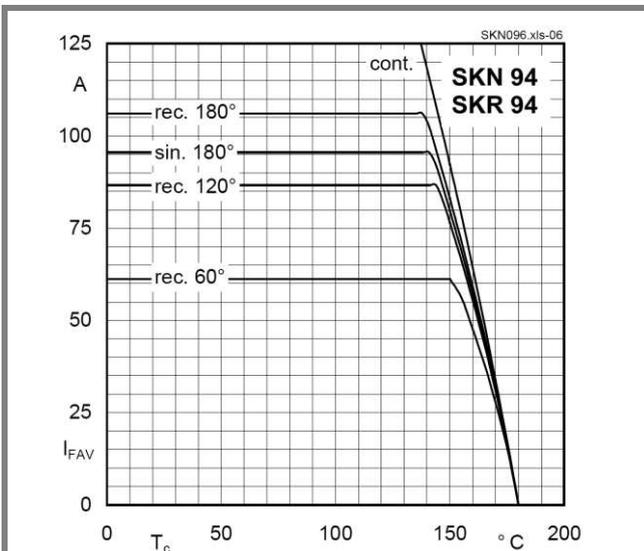


Fig. 2 Forward current vs. case temperature

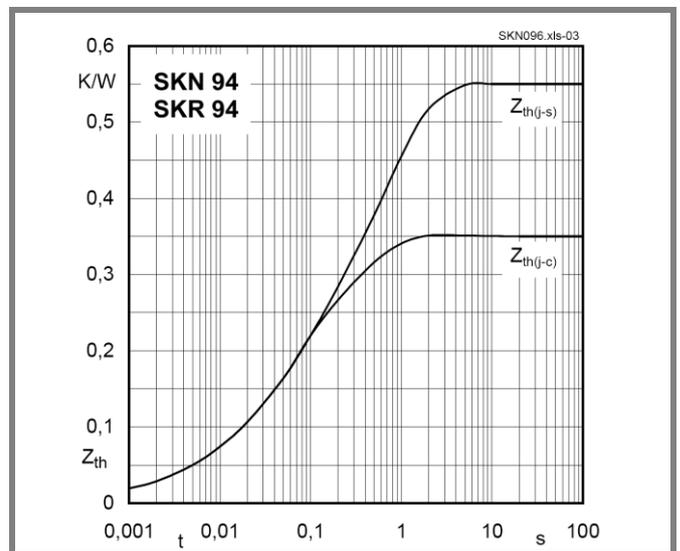


Fig. 4 Transient thermal impedance vs. time

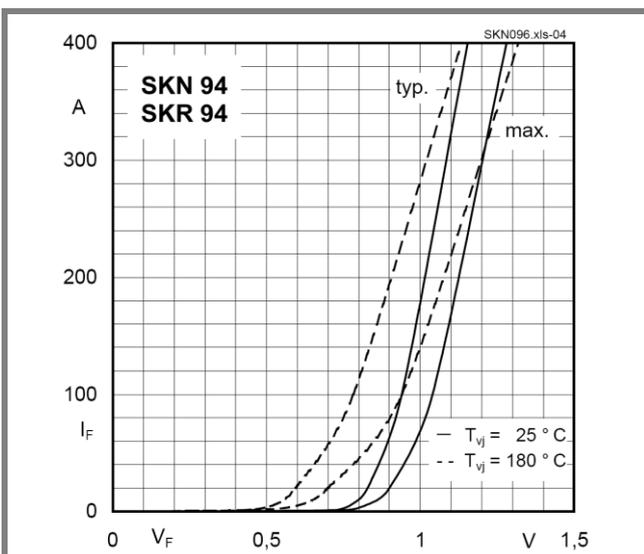


Fig. 5 Forward characteristics

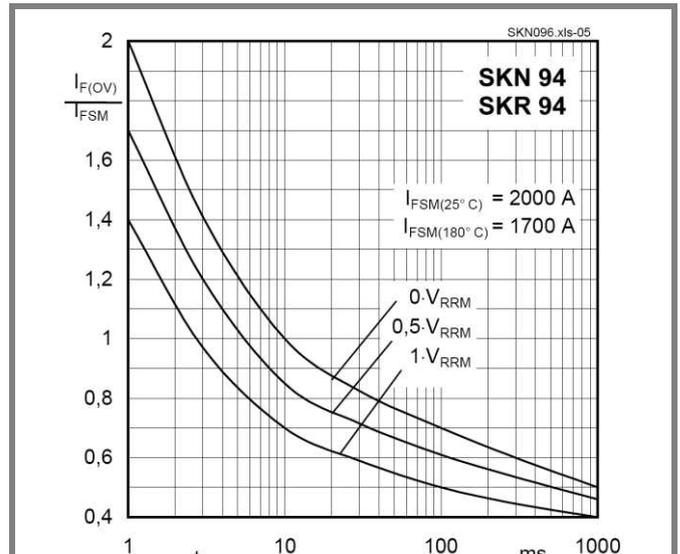
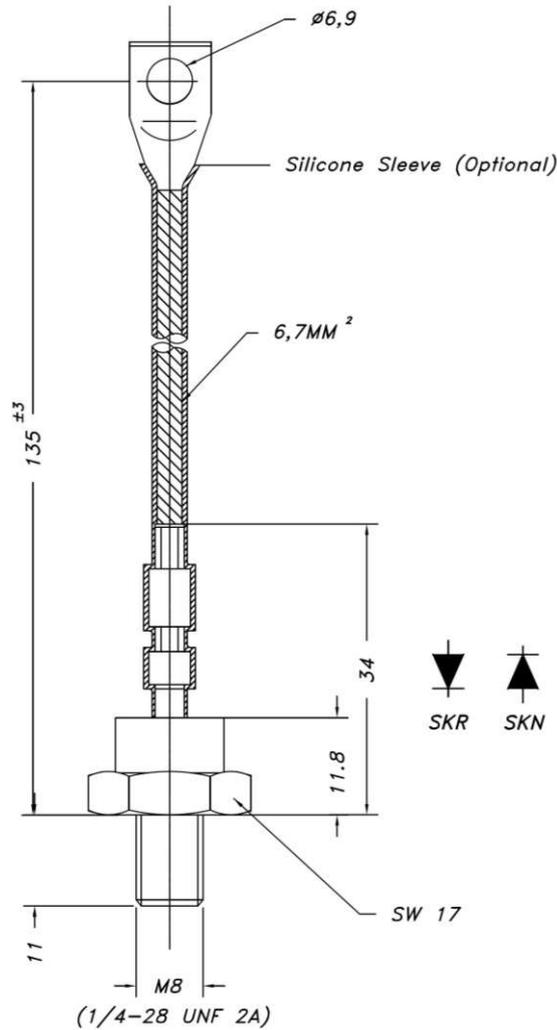


Fig. 6 Surge overload current vs. time



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

## \*IMPORTANT INFORMATION AND WARNINGS

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