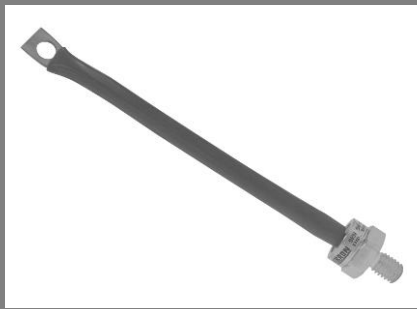


# SKN 94, SKR 94



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<sup>2)</sup>
- **SKN**: anode to stud
- **SKR**: cathode to stud

### Typical Applications

- All purpose mean power rectifier diodes
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:  
RC: 0,1  $\mu$ F, 100  $\Omega$  ( $P_R = 2W$ ),  
R<sub>p</sub>: 80 K $\Omega$  ( $P_R = 6 W$ )

1) Mounting with grease-like thermal compound or joint contact compound  
2) M8x1,25 is standard, "UNF" should be added in description for 1/4 - 28 2A thread

$V_{RSM}$ 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	20000 14450	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 $\Omega$
$I_R$	$T_{vj} = 25^\circ C$ ; $V_R = V_{RRM}$	0,6	mA
$Q_{rr}$	$T_{vj} = 180^\circ C$ ; $V_R = V_{RRM}$ $T_{vj} = 160^\circ C$ , $-di_F/dt = 10 A/\mu s$	10 typ. 80	mA $\mu C$
$R_{thjc}$		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 Stud 1/4 - 28 UNF 2A Stud M8 Stud (lubricated) <sup>1)</sup> 1/4 - 28 UNF 2A Stud (lubricated) <sup>1)</sup>	4 2,5 3 2	Nm Nm Nm Nm
a		5 * 9,81	m/s <sup>2</sup>
m	approx.	34	g
Case		E12a	



SKN



SKR

# SKN 94, SKR 94

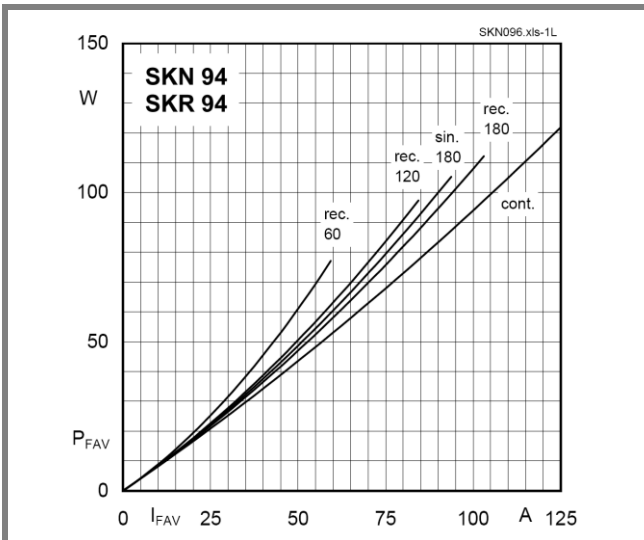


Fig. 1L Power dissipation vs. forward current

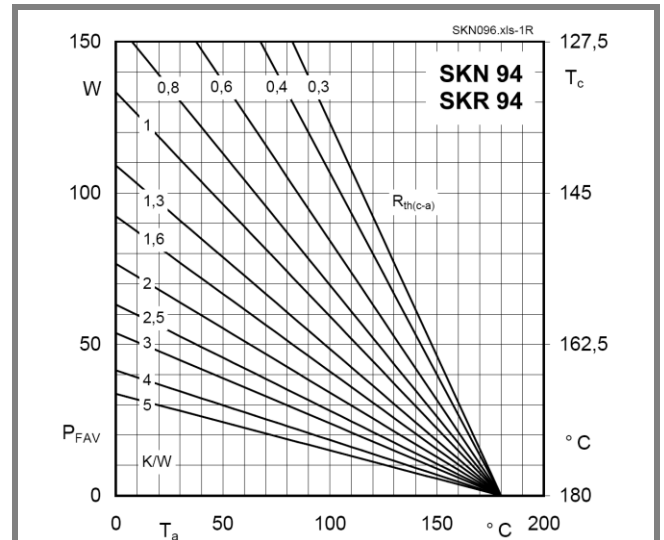


Fig. 1R Power dissipation vs. ambient temperature

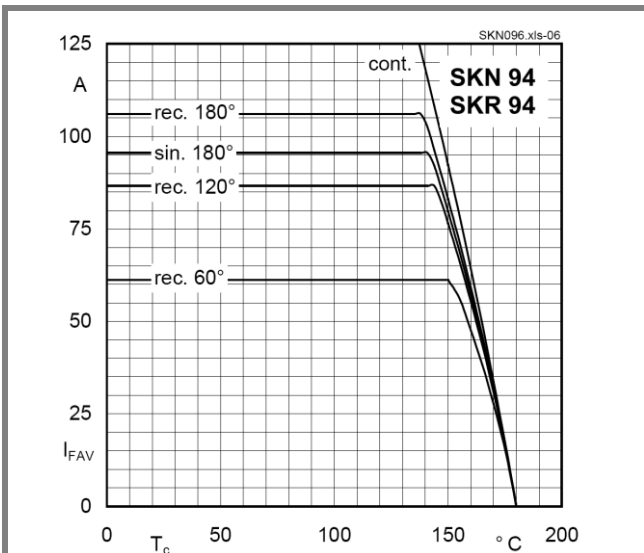


Fig. 2 Forward current vs. case temperature

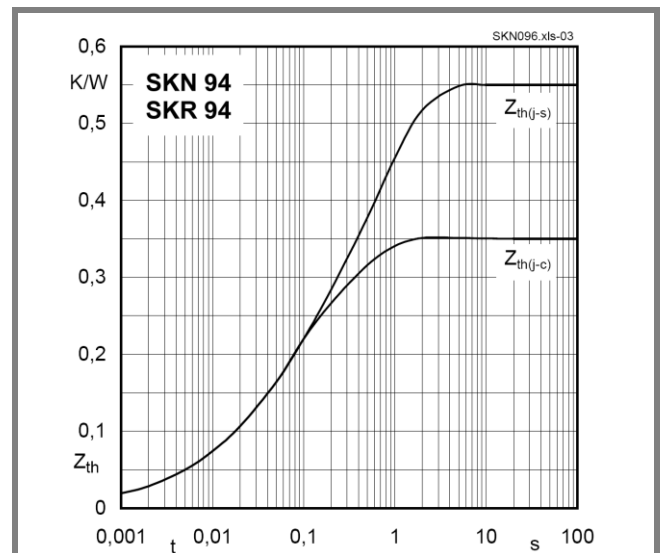


Fig. 4 Transient thermal impedance vs. time

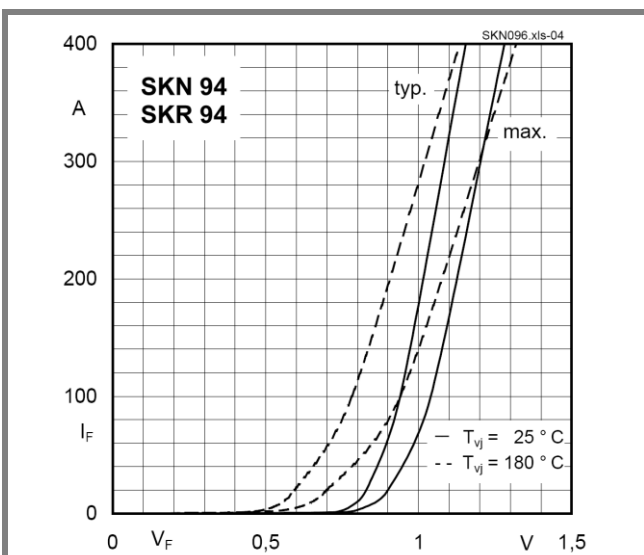


Fig. 5 Forward characteristics

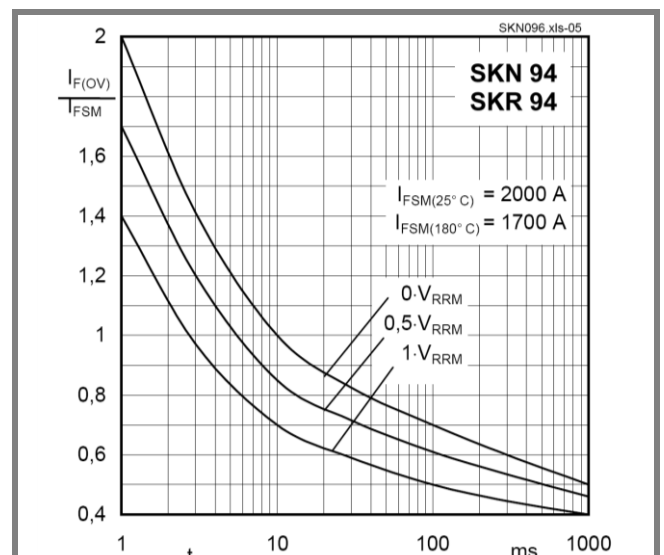
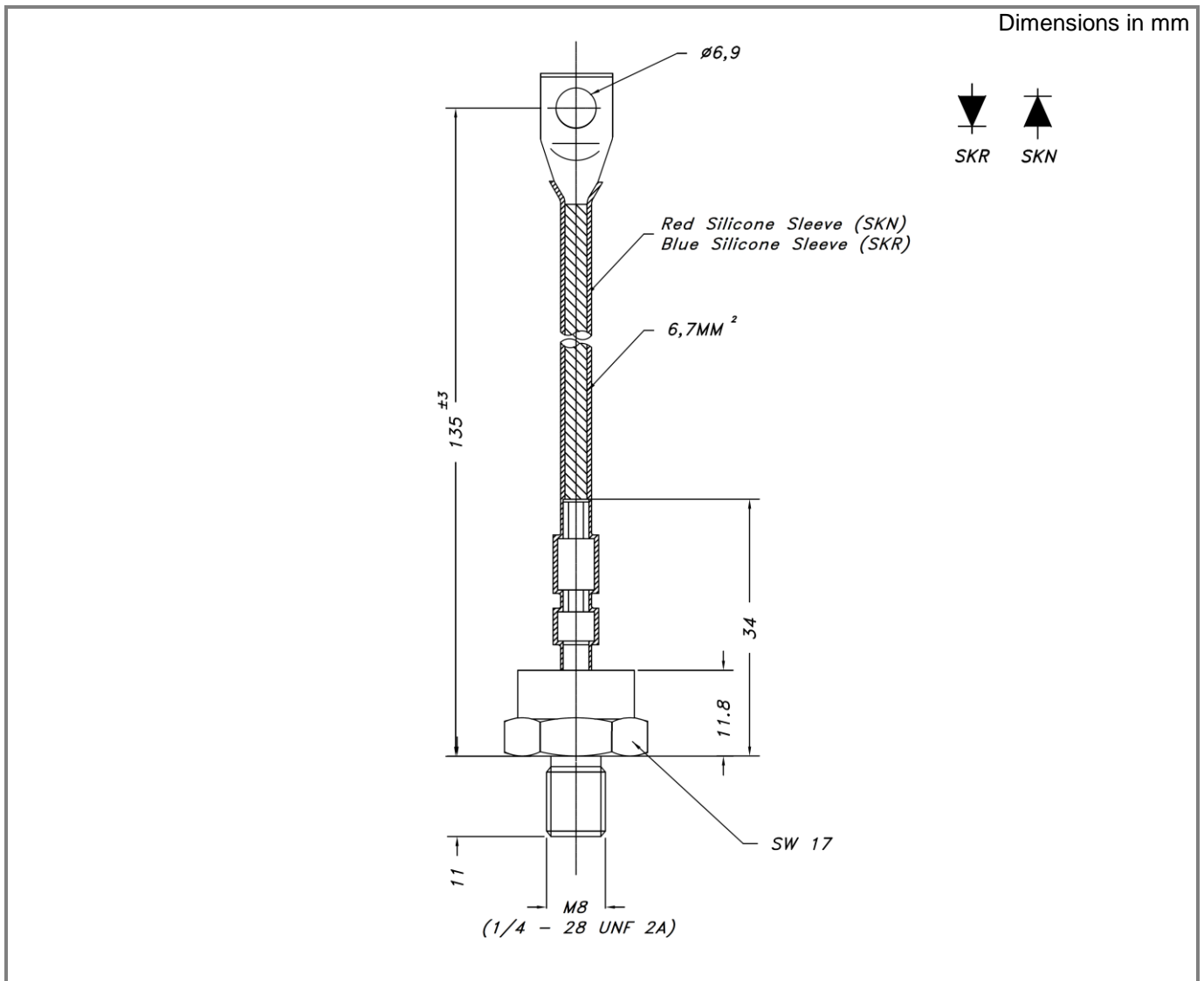


Fig. 6 Surge overload current vs. time

# SKN 94, SKR 94



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

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