SKN 94, SKR 94

Stud Diode

Rectifier Diode

SKN 94
SKR 94

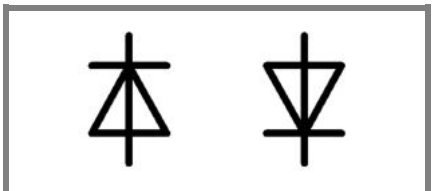
Features

- 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[2)]
- **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 µF, 100 Ω (P_R = 2W),
  R_p: 80 KΩ (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 ¼ - 28 2A thread



SKN SKR

V_{RSM} V	V_{RRM} V	I_{FRMS} = 150 A (maximum value for continuous operation) I_{FAV} = 95 A (sin. 180; T_c = 142 ºC)	
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 ºC	95	A
	; T_C = 150 ºC	80	A
I_{FSM}	T_{vj} = 25º C ; 10 ms	2000	A
	T_{vj} = 180º C ; 10 ms	1700	A
i^2t	T_{vj} = 25º C ; 8,3...10 ms	20000	A^2s
	T_{vj} = 180º C ; 8,3...10 ms	14450	A^2s
V_F	T_{vj} = 25º C, I_F = 300 A	Max. 1,2	V
$V_{(TO)}$	T_{vj} = 180º C	0,8	V
r_T	T_{vj} = 180º C	1,4	mΩ
I_R	T_{vj} = 25º C ; V_R = V_{RRM}	0,6	mA
	T_{vj} = 180º C ; V_R = V_{RRM}	10	mA
Q_{rr}	T_{vj} = 160°C, -di_F/dt = 10 A/µs	typ. 80	µC
R_{thjc}		0,35	º C/W
R_{thch}		0,2	º C/W
T_{vj}		-40...+180	°C
T_{stg}		-55...+180	°C
M	M8 Stud	4	Nm
	¼ - 28 UNF 2A Stud	2,5	Nm
	M8 Stud (lubricated)[1)]	3	Nm
	¼ - 28 UNF 2A Stud (lubricated)[1)]	2	Nm
a		5 * 9,81	m/s^2
m	approx.	34	g
Case		E12a	

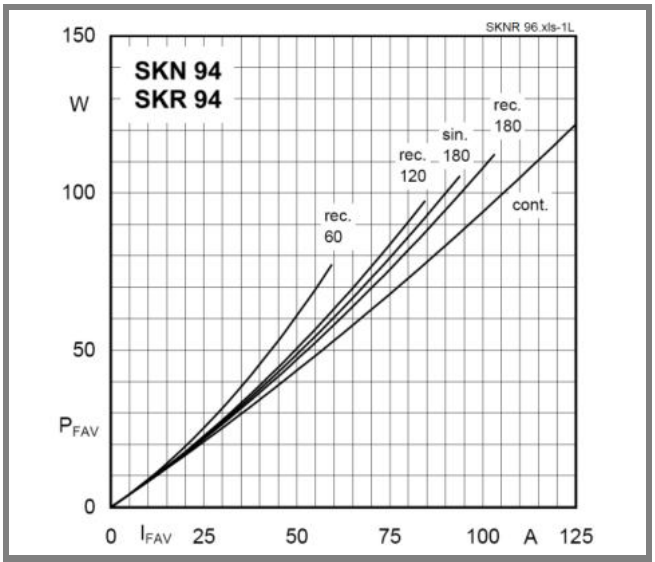


Fig. 1L Power dissipation vs. forward current

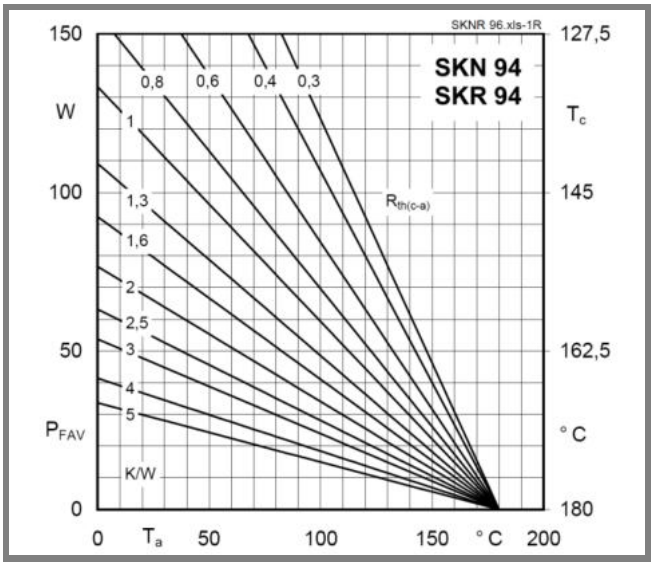


Fig. 1R Power dissipation vs. ambient temperature

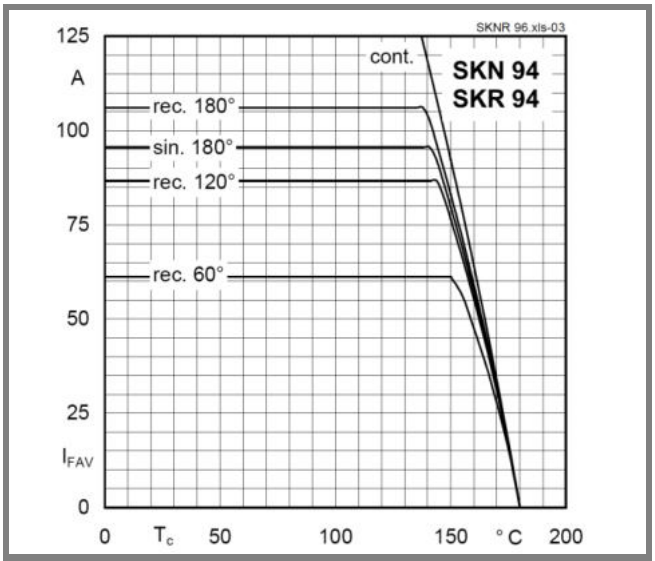


Fig. 3 Forward current vs. case temperature

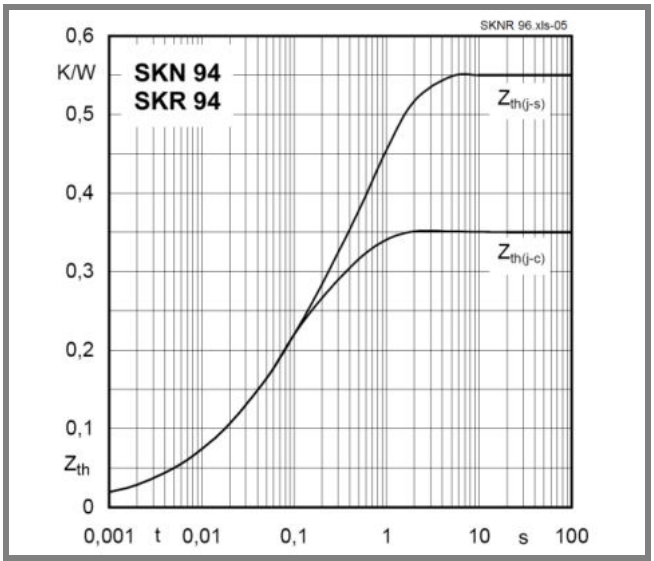


Fig. 5 Transient thermal impedance vs. time

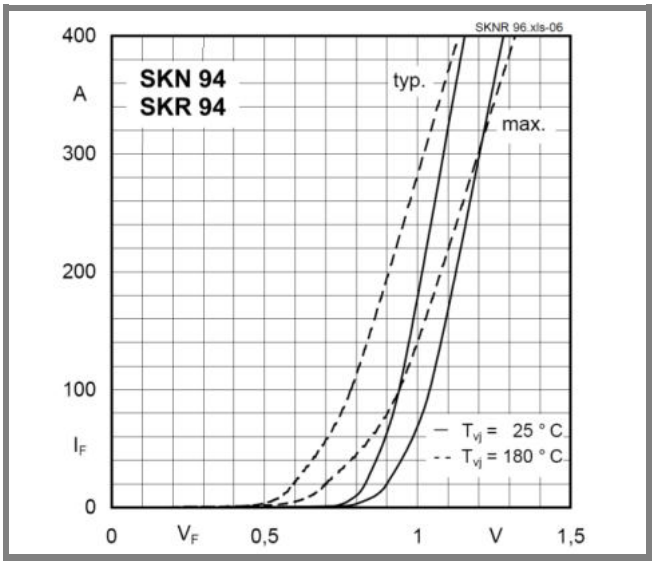


Fig. 6 Forward characteristics

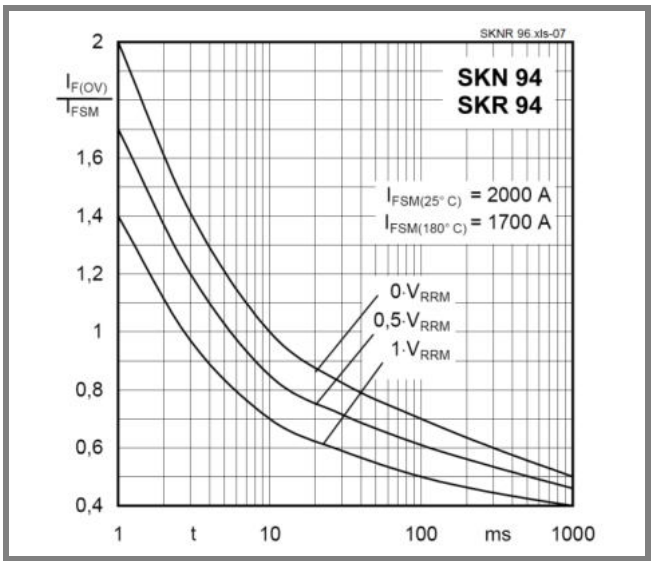
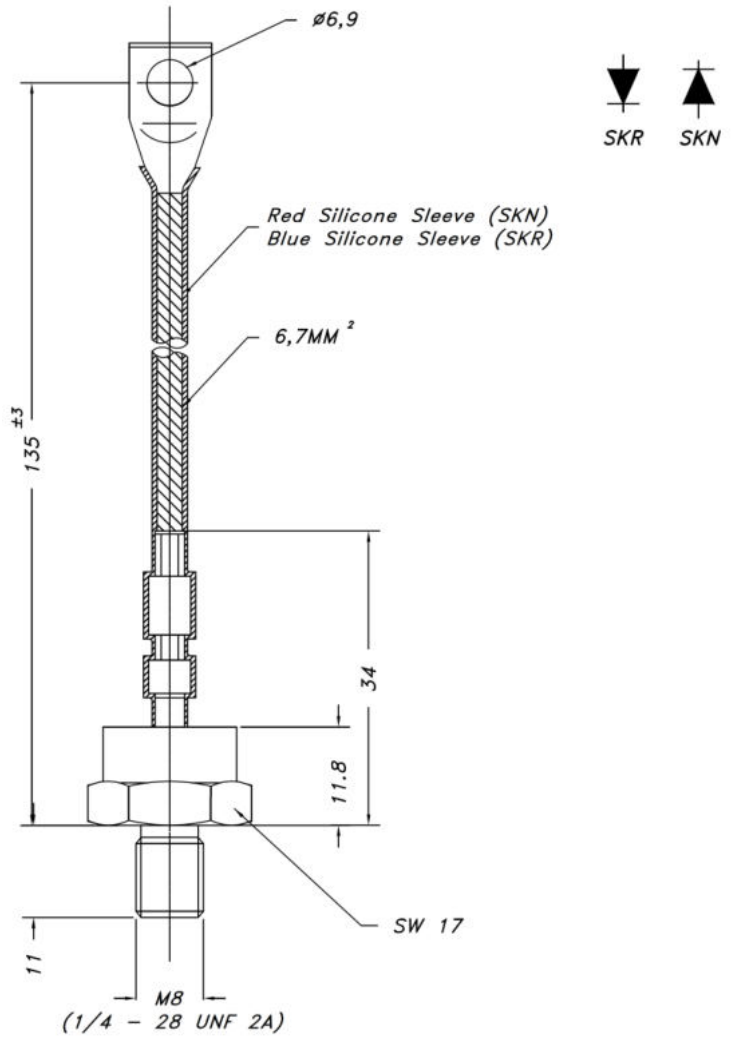


Fig. 7 Surge overload current vs. time

Dimensions in mm



Case E12a (IEC 60191: A 16 U, A 17 MB 2; JEDEC: SO-32 A, SO-32 B)

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