

SKN 96, SKR 96



Stud Diode

Rectifier Diode

SKN 96
SKR 96

Features

- Low power dissipation
- Reverse voltages up to 1200 V
- Hermetic metal cases with glass insulator
- 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 ($P_R = 2$ W),
R_p: 80 K Ω ($P_R = 6$ W)

Note: for UNF thread versions add an UNF at the description's end.
(e.g. SKR 96/04 UNF)

V_{RSM} V	V_{RRM} V	$I_{FRMS} = 150$ A (maximum value for continuous operation) $I_{FAV} = 95$ A (sin. 180; $T_C = 142$ °C)	
200	200	SKN 96/02	SKR 96/02
400	400	SKN 96/04	SKR 96/04
800	600	SKN 96/08	SKR 96/08
1200	1200	SKN 96/12	SKR 96/12

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	$T_{vj} = 180^\circ$ C ; 10 ms; $V_R = V_{RRM}$ $T_{vj} = 25^\circ$ C ; 8,3...10 ms $T_{vj} = 180^\circ$ C ; 8,3...10 ms $T_{vj} = 180^\circ$ C ; 8,3...10 ms; $V_R = V_{RRM}$	1450 20000 14400 10500	A A ² s A ² s A ² 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 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}	$T_{vj} = 160$ °C, $-di_F/dt = 10$ A/ μ s	typ. 80	μ C
R_{thjc}	DC to rect. 120 rect. 60 rect. 30	0,35 0,40 0,50	$^\circ$ C/W $^\circ$ C/W $^\circ$ C/W
R_{thch}		0,2	$^\circ$ C/W
T_{vj}		-40...+180	°C
T_{stg}		-55...+180	°C
M	M8 SI / US units 1/4" 28 UNF-2A SI / US units	4 Nm / 35 lb.in 2,5 Nm / 22 lb.in	
a m	approx.	5 * 9,81 20	m/s ² g
Case		E10	



SKN



SKR

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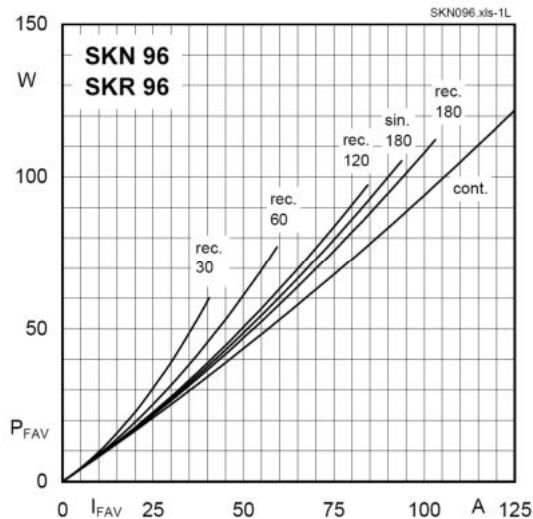


Fig. 1L Power dissipation vs. forward current

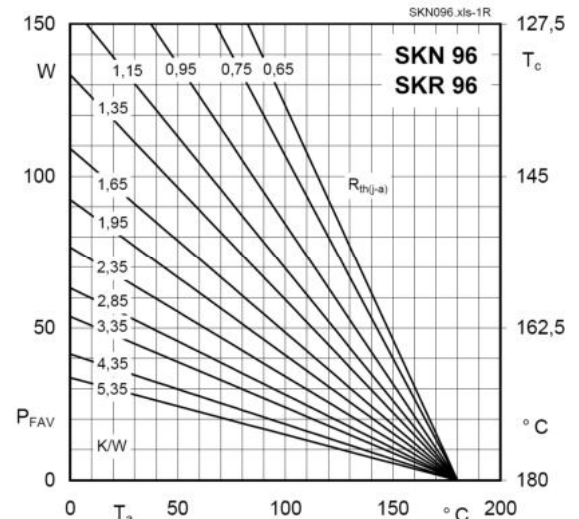


Fig. 1R Power dissipation vs. ambient temperature

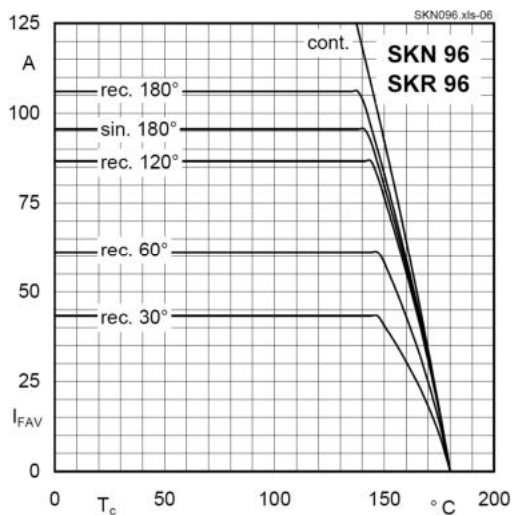


Fig. 2 Forward current vs. case temperature

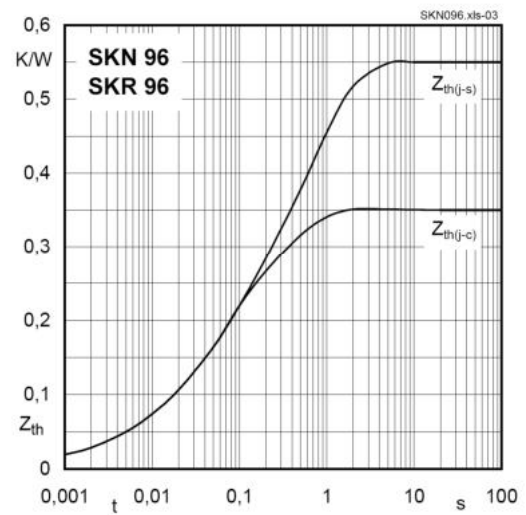


Fig. 4 Transient thermal impedance vs. time

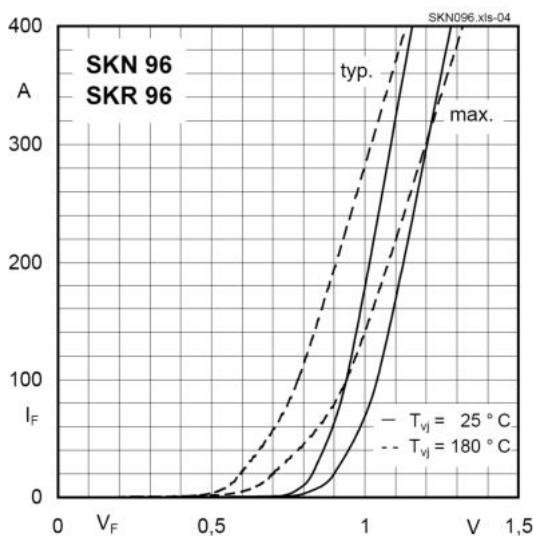
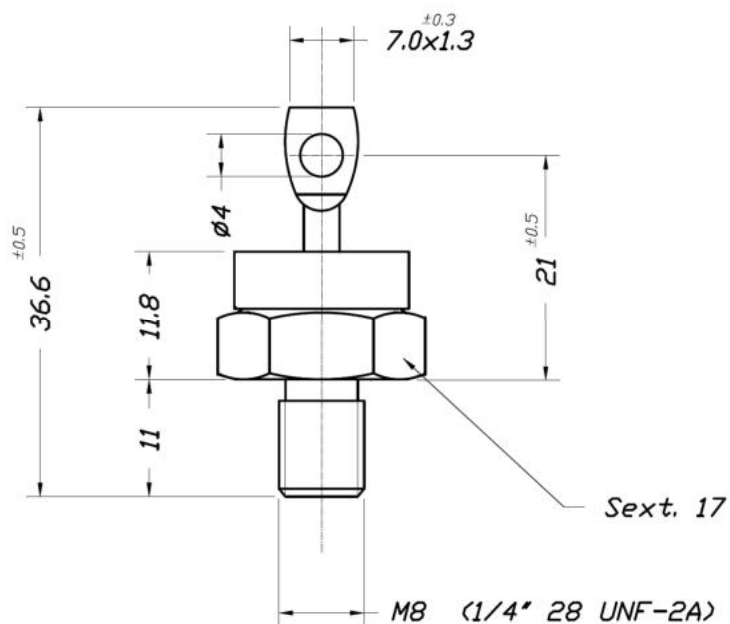


Fig. 5 Forward characteristics

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Dimensions in mm



Case E 10 (JEDEC: DO-203 AB (DO-5))

* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.