

SKN 600, SKR 600



Stud Diode

V_{RSM} V	V_{RRM} V	$I_{FRMS} = 950$ A (maximum value for continuous operation) $I_{FAV} = 600$ A (sin. 180; $T_c = 105$ °C)	
400	400	SKN 600/04	SKR 600/04
800	800	SKN 600/08	SKR 600/08
1200	1200	SKN 600/12	SKR 600/12
1600	1600	SKN 600/16	SKR 600/16

Rectifier Diode

SKN 600
SKR 600

Features

- Reverse voltages up to 1600 V
- Hermetic metal cases with glass insulator
- Threaded stud M24 x 1,5 mm (3/4 16 UNF 2A and M20 x 1,5 mm available²⁾)
- Optional silicone sleeve (red for SKN and blue for SKR)
- **SKN**: anode to stud
- **SKR**: cathode to stud

Typical Applications *

- All purpose high power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:
RC: 1,0 μ F, 20 Ω ($P_R = 2$ W),
 R_p : 25 K Ω ($P_R = 20$ W)

1) Mounting with grease-like thermal compound or joint contact compound

2) M24x1,5 is standard; "UNF" should be added in description for 3/4 - 16 UNF 2A thread, while "M20" should be added in description for M20x1,5 thread

Symbol	Condition	Values	Units
I_{FAV}	sin. 180 ; $T_C = 105$ (125) °C	600 (475)	A
I_{FSM}	$T_{vj} = 25^\circ$ C ; 10 ms $T_{vj} = 180^\circ$ C ; 10 ms	14000 12000	A A
i^2t	$T_{vj} = 25^\circ$ C ; 8,3...10 ms $T_{vj} = 180^\circ$ C ; 8,3...10 ms	980000 720000	A ² s A ² s
V_F $V_{(TO)}$ r_T I_{RD} Q_{rr}	$T_{vj} = 25^\circ$ C, $I_F = 1500$ A $T_{vj} = 180^\circ$ C $T_{vj} = 180^\circ$ C $T_{vj} = 180^\circ$ C ; $V_R = V_{RRM}$ $T_{vj} = 160^\circ$ C, $-di_F/dt = 10$ A/ μ s	max. 1,33 max. 0,8 max. 0,3 max. 100 typ. 330	V V m Ω mA μ C
$R_{th(i-c)}$ $R_{th(c-s)}$ T_{vj} T_{stg}		0,1 0,015 -40...+180 -55...+180	K/W K/W °C °C
V_{isol} M_s	M24 x 1,5mm (lubricated) ¹⁾ 3/4 – 16 UNF (lubricated) ¹⁾ M20 x 1,5mm (lubricated) ¹⁾	- 60 (48) 30 (24) 40 (32)	V~ Nm Nm Nm
a m	approx.	5 * 9,81 500	m/s ² g
Case		E16	



SKN



SKR

SKN 600, SKR 600

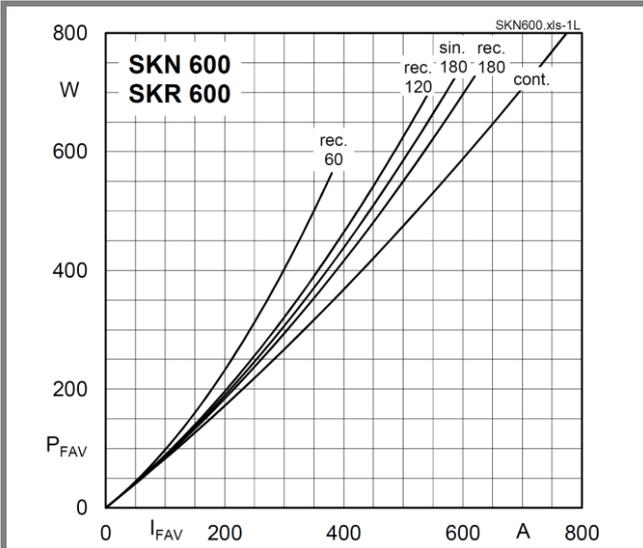


Fig. 1L Power dissipation vs. forward current

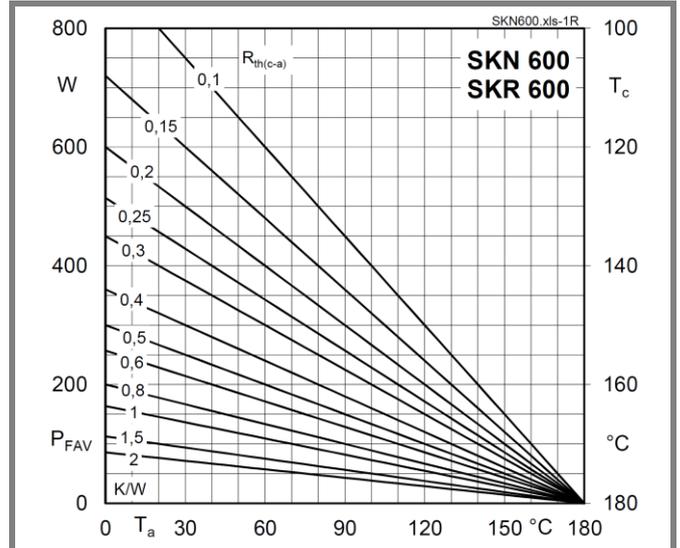


Fig. 1R Power dissipation vs. ambient temperature

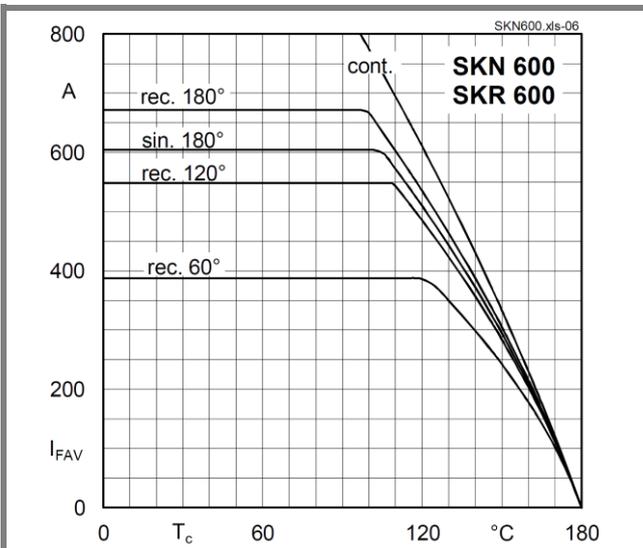


Fig. 2 Forward current vs. case temperature

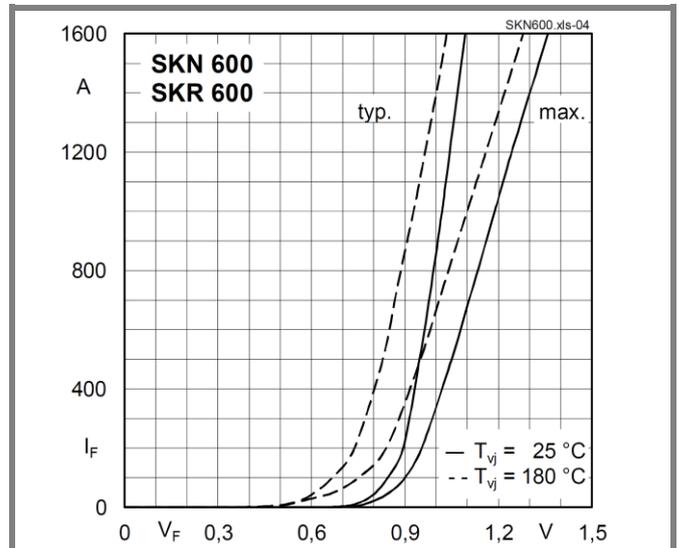


Fig. 5 Forward characteristics

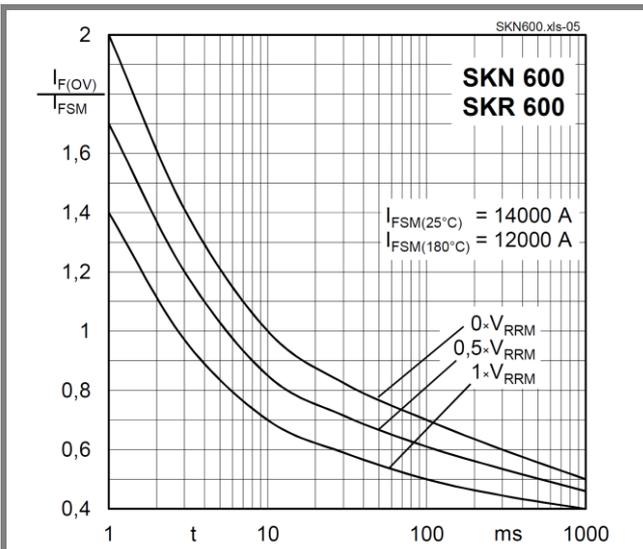
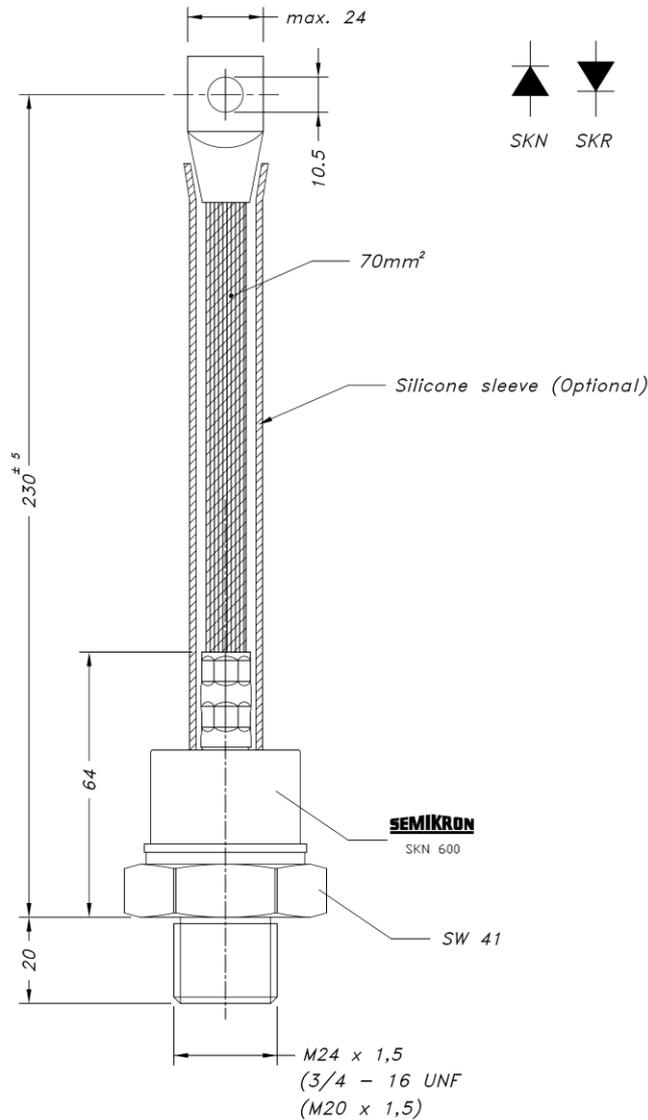


Fig. 6 Surge overload current vs. time



Case E16 (IEC 60191: A 22 B)

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