

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 available)²⁾
- Optional silicone sleeve (red for SKN and blue for SKR)
- **SKN:** anode to stud
- **SKR:** cathode to stud

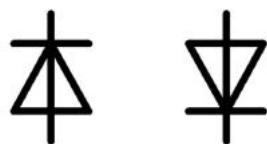
Typical Applications *

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



SKN

SKR

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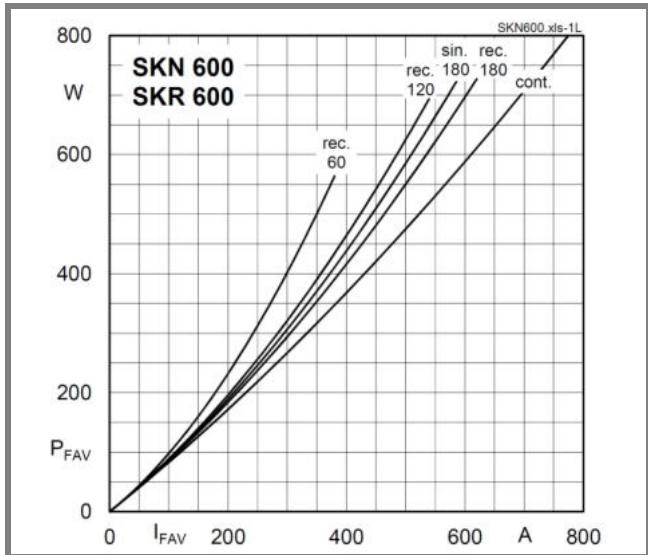


Fig. 1L Power dissipation vs. forward current

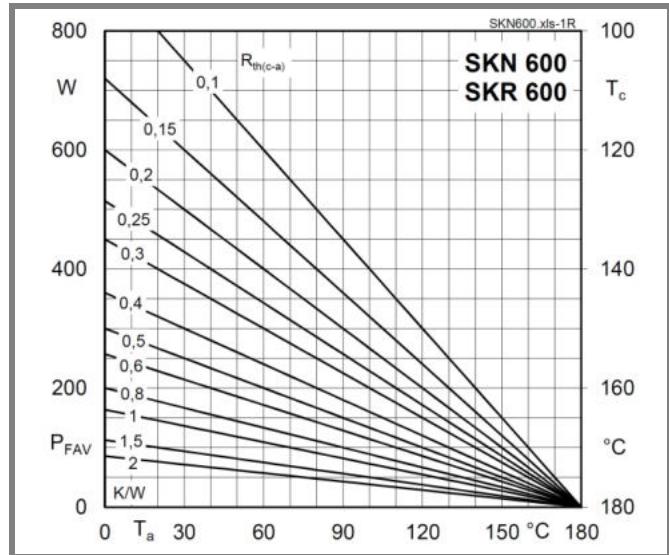


Fig. 1R Power dissipation vs. ambient temperature

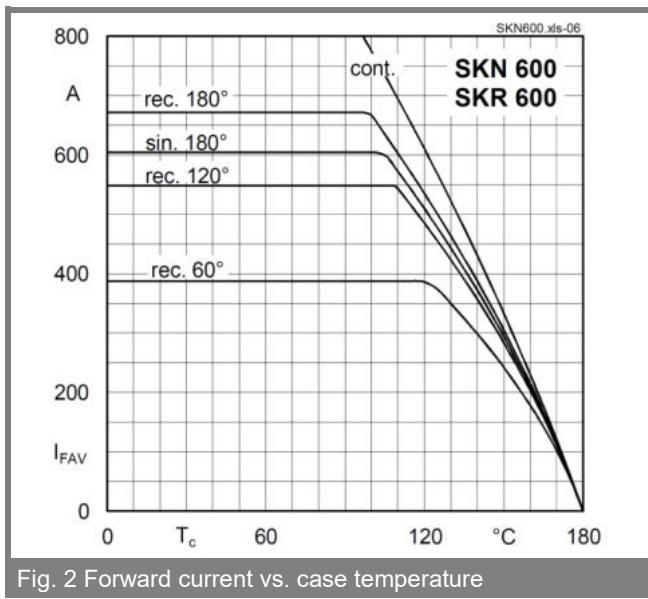


Fig. 2 Forward current vs. case temperature

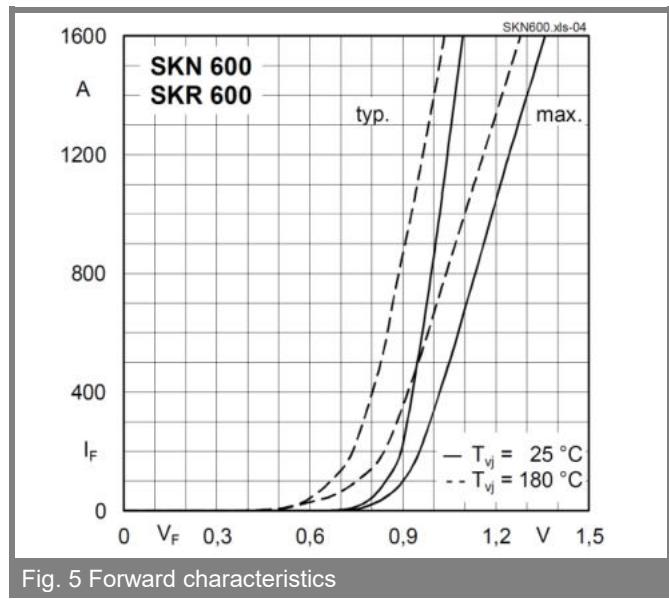


Fig. 5 Forward characteristics

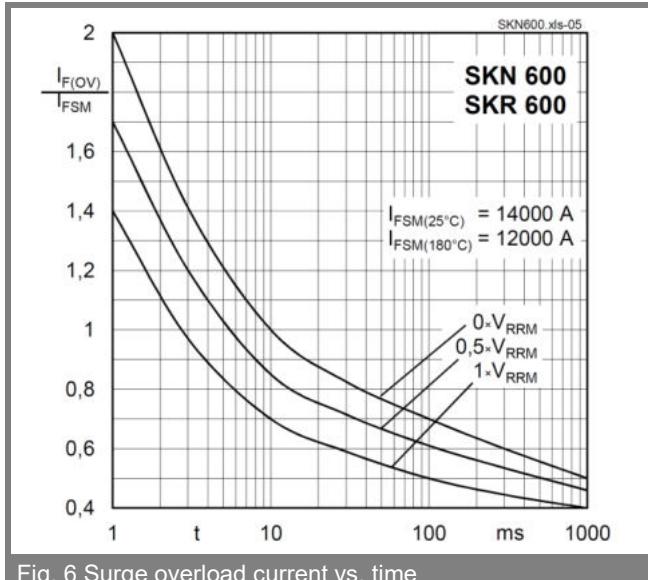
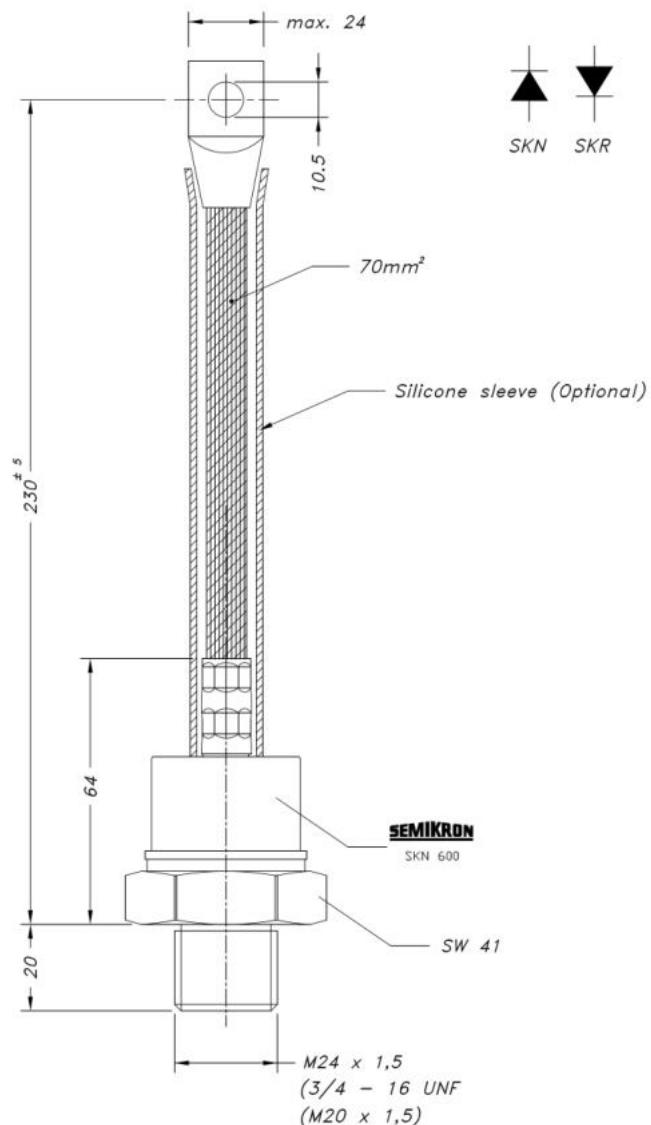


Fig. 6 Surge overload current vs. time

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Dimensions in mm



Case E16 (IEC 60191: A 22 B)

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