

SKN 70, SKR 70



V_{RSM} V				V_{RRM} V				$I_{FRMS} = 150$ A (maximum value for continuous operation) $I_{FAV} = 72$ A (sin. 180; $T_c = 125$ °C)			
400				400				SKN 70/04			
800				800				SKN 70/08			
1200				1200				SKN 70/12			
1400				1400				SKN 70/14			
1600				1600				SKN 70/16			

Stud Diode

Rectifier Diode

SKN 70
SKR 70

Features

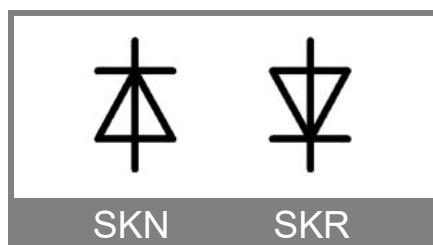
- Reverse voltages up to 1600 V
- Hermetic metal case with glass insulator
- Cooling via heatsinks
- Threaded stud ISO M8, M6 or 1/4 - 28 UNF 2A²⁾
- **SKN**: anode to stud
- **SKR**: cathode to stud

Typical Applications *

- All purpose high power rectifier diodes
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:
 $R_c: 0,1 \mu F, 100 \Omega (P_R = 2W)$,
 $R_p: 80 k\Omega (P_R = 6 W)$

Symbol	Condition	Values	Units
I_{FAV}	$\sin. 180 ; T_c = 100$ °C	94	A
I_D	$K 1,1; T_a = 45$ °C; B2 / B6	112 / 159	A
	$K 1,1F; T_a = 35$ °C; B2 / B6	174 / 246	A
I_{FSM}	$T_{vj} = 25$ °C ; 10 ms	1150	A
i^2t	$T_{vj} = 180$ °C ; 10 ms	1000	A
	$T_{vj} = 25$ °C ; 8,3...10 ms	6600	A ² s
	$T_{vj} = 180$ °C ; 8,3...10 ms	5000	A ² s
V_F	$T_{vj} = 25$ °C, $I_F = 200$ A	max. 1,5	V
$V_{(TO)}$	$T_{vj} = 180$ °C	max. 0,85	V
r_T	$T_{vj} = 180$ °C	max. 3	mΩ
I_{RD}	$T_{vj} = 180$ °C ; $V_{RD} = V_{RRM}$	max. 10	mA
Q_{fr}	$T_{vj} = 160$ °C, $-di_F/dt = 10$ A/μs	70	μC
$R_{th(j-c)}$		0,55	K/W
$R_{th(c-s)}$		0,2	K/W
T_{vj}		-40...+180	°C
T_{stg}		-55...+180	°C
V_{isol}		-	V~
M_s	M8 Stud	4	Nm
	M6 or 1/4 - 28 UNF 2A	2,5	Nm
	M8 Stud (lubricated) ¹⁾	3	Nm
	M6 or 1/4 - 28 UNF 2A (lubricated) ¹⁾	2	Nm
a	approx.	5 * 9,81	m/s ²
m		30	g
Case		E 12	

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, while "M6" must be added for M6x1 thread



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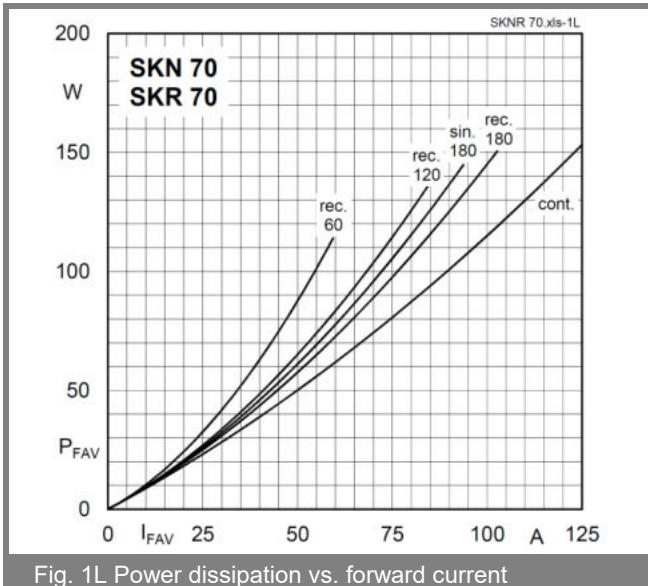


Fig. 1L Power dissipation vs. forward current

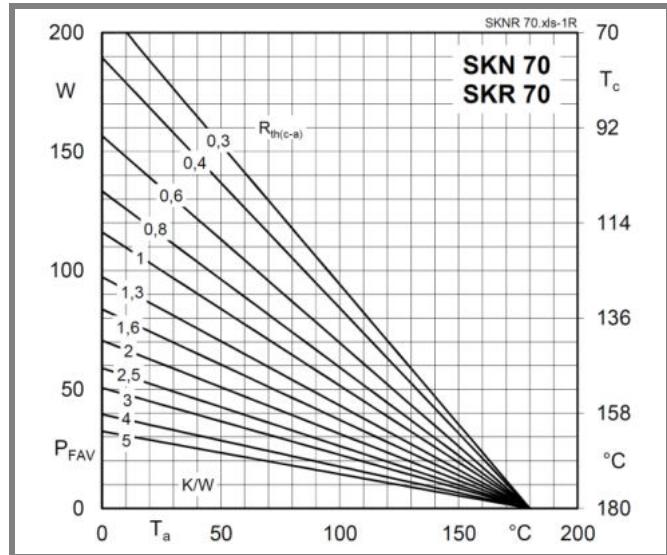


Fig. 1R Power dissipation vs. ambient temperature

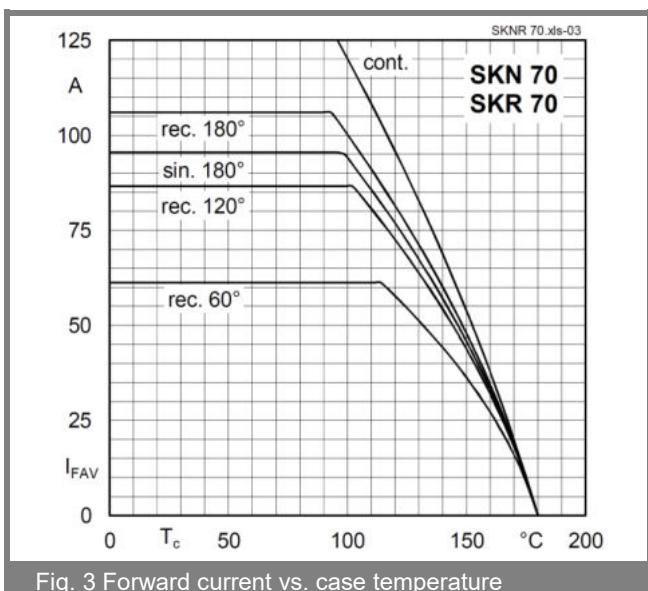


Fig. 3 Forward current vs. case temperature

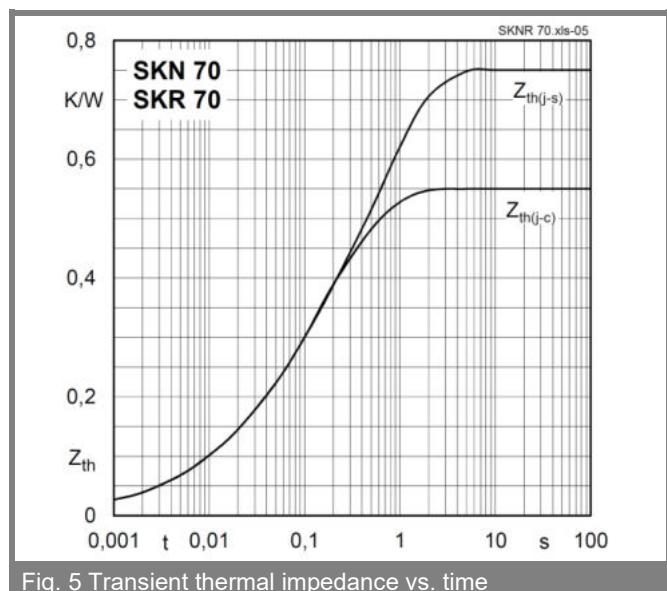


Fig. 5 Transient thermal impedance vs. time

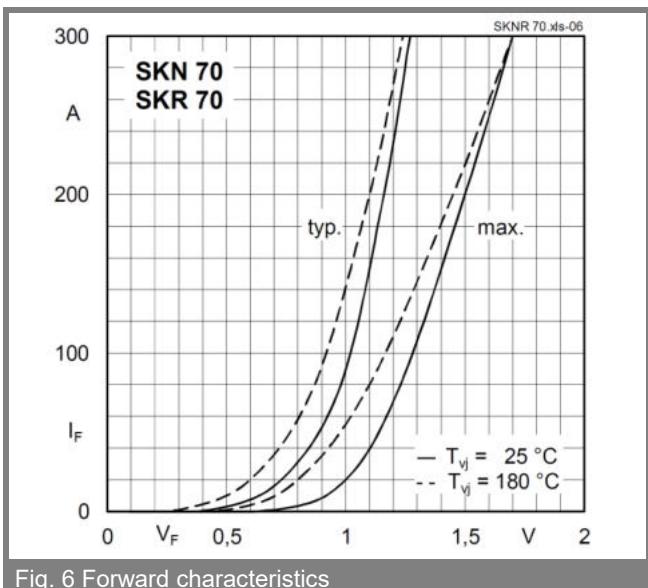


Fig. 6 Forward characteristics

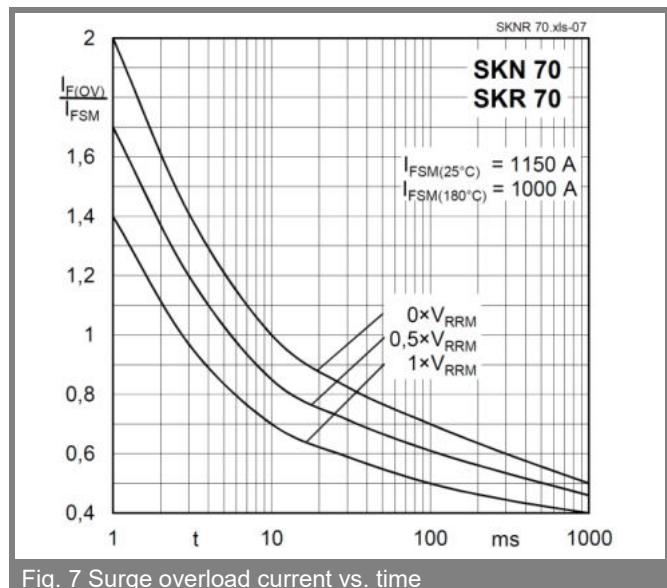
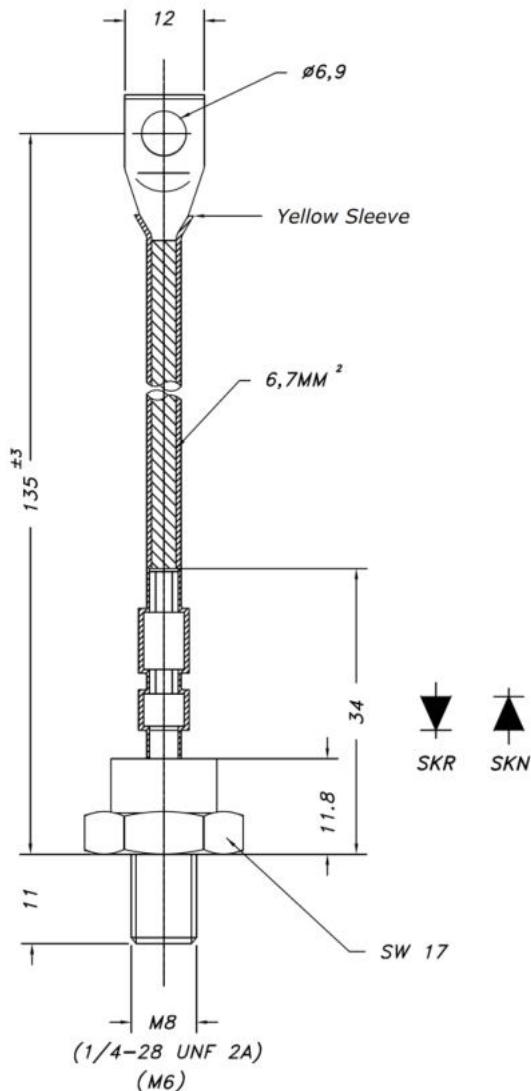


Fig. 7 Surge overload current vs. time

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Dimensions in mm



Case E12 (IEC 60191: A 16 U; A 17 MB 2; JEDEC: SO-32 A, SO-32B)

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