SKN 70, SKR 70

Stud Diode

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

Rectifier Diode

SKN 70
SKR 70

Features

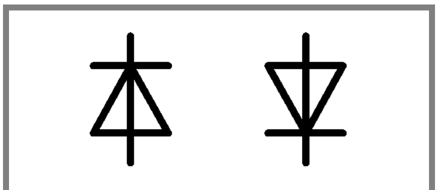
- Reverse voltages up to 1600 V
- Hermetic metal case with glass insulator
- Cooling via heatsinks
- Threaded stud ISO M8, M6 or ¼ - 28 UNF 2A[2)]
- **SKN:** anode to stud
- **SKR:** cathode to stud

Typical Applications *

- All purpose high power rectifier diodes
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:
  R_C: 0,1 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, while “M6” must be added for M6x1 thread

Symbol	Condition	Values	Units
I_{FAV}	sin. 180 ; T_C = 100 ºC	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} = 25º C ; 10 ms	1150	A
	T_{vj} = 180º C ; 10 ms	1000	A
i^2t	T_{vj} = 25º C ; 8,3...10 ms	6600	A^2s
	T_{vj} = 180º C ; 8,3...10 ms	5000	A^2s
V_F	T_{vj} = 25º C, I_F = 200 A	max. 1,5	V
$V_{(TO)}$	T_{vj} = 180º C	max. 0,85	V
r_T	T_{vj} = 180º C	max. 3	mΩ
I_{RD}	T_{vj} = 180º C ; V_{RD} = V_{RRM}	max. 10	mA
Q_{rr}	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 ¼ - 28 UNF 2A	2,5	Nm
	M8 Stud (lubricated)[1)]	3	Nm
	M6 or ¼ - 28 UNF 2A (lubricated)[1)]	2	Nm
a		5 * 9,81	m/s^2
m	approx.	30	g
Case		E 12	



SKN SKR

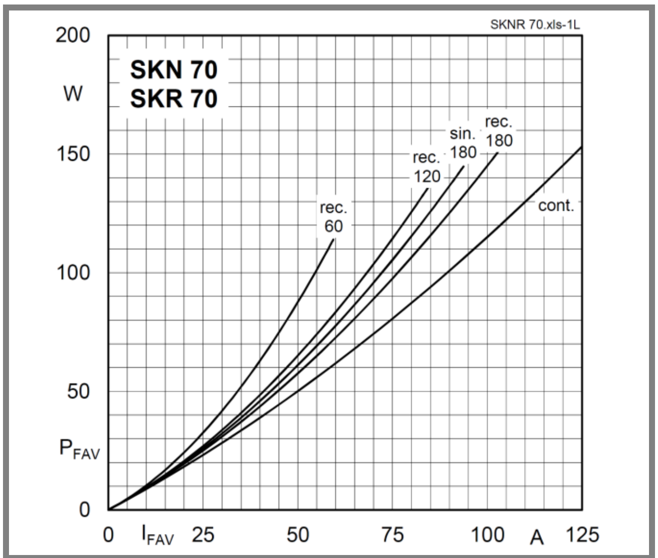


Fig. 1L Power dissipation vs. forward current

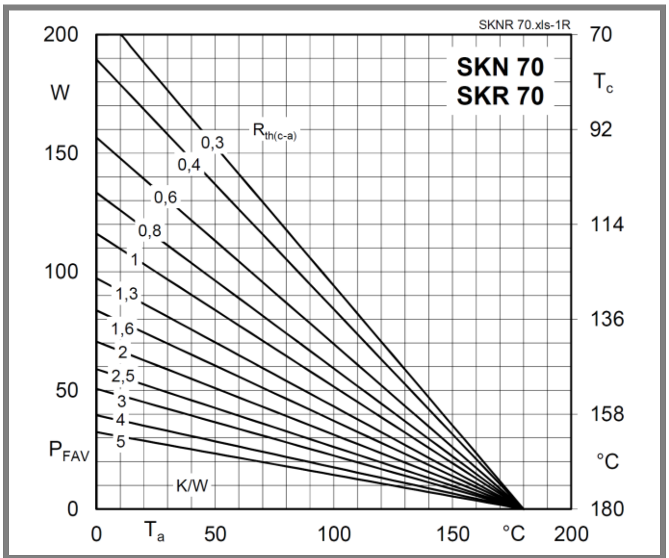


Fig. 1R Power dissipation vs. ambient temperature

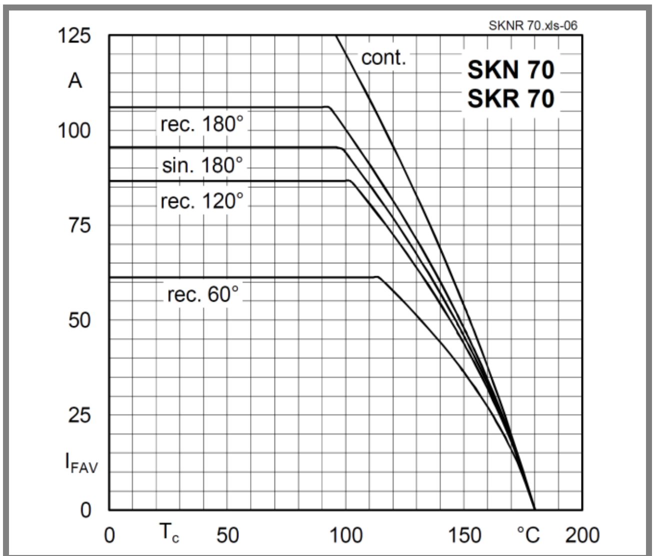


Fig. 2 Forward current vs. case temperature

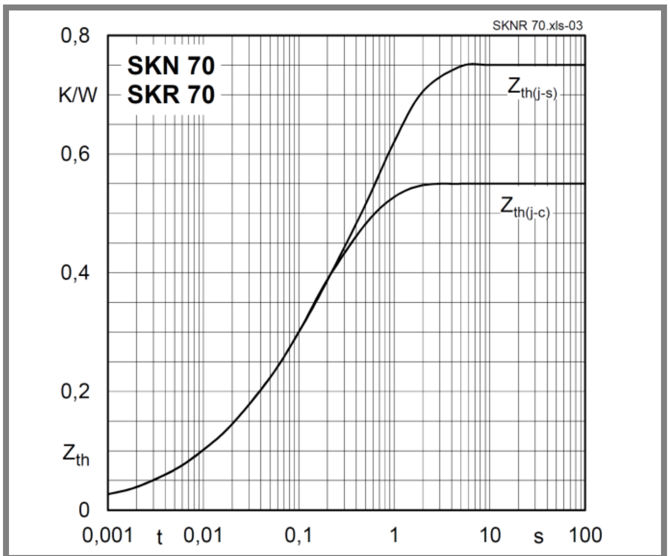


Fig. 4 Transient thermal impedance vs. time

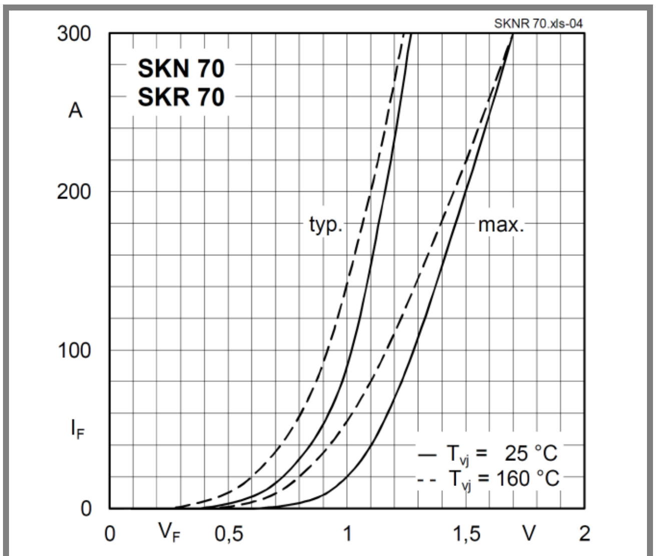


Fig. 5 Forward characteristics

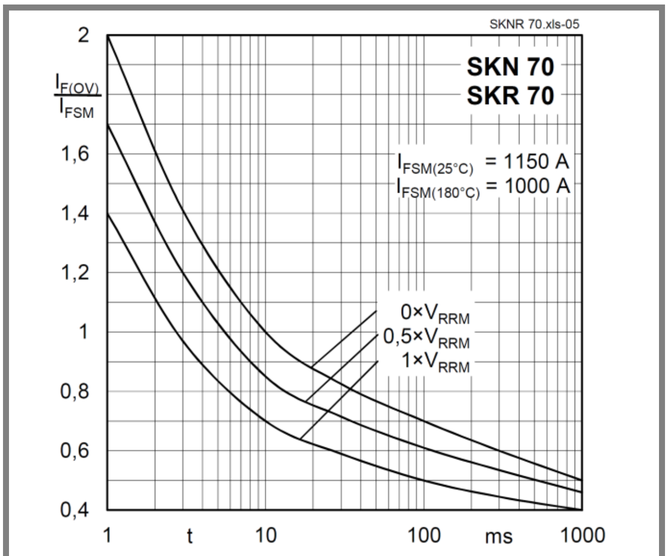
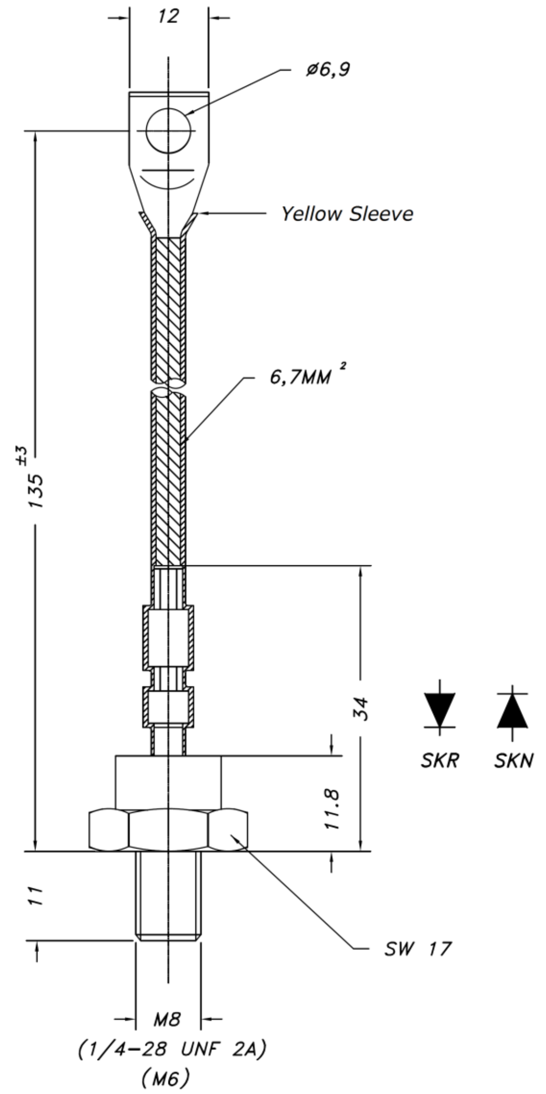


Fig. 6 Surge overload current vs. time

Dimensions in mm



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