



Stud Diode

Rectifier Diode

SKN 71

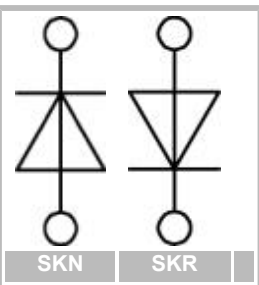
SKR 71

Features

- Reverse voltages up to 1600 V
- Hermetic metal case with glass insulator
- Threaded stud ISO M8 and also 1/4-28 UNF
- 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 • F, 100 • (P_R = 2 W),
R_P = 80 k• (P_R = 6 W)



V_{RSM}	V_{RRM}	$I_{FRMS} = 150 \text{ A}$ (maximum value for continuous operation)	
V	V	$I_{FAV} = 70 \text{ A}$ (sin. 180; $T_c = 125^\circ \text{C}$)	
400	400	SKN 71/04	SKR 71/04
800	800	SKN 71/08	SKR 71/08
1200	1200	SKN 71/12	SKR 71/12
1400	1400	SKN 71/14	SKR 71/14
1600	1600	SKN 71/16	SKR 71/16

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; $T_c = 100^\circ \text{C}$	95	A
I_D	K 1,1; $T_a = 45^\circ \text{C}$; B2 / B6	112 / 159	A
	K 1,1F; $T_a = 35^\circ \text{C}$; B2 / B6	174 / 246	A
I_{FSM}	$T_{vj} = 25^\circ \text{C}$; 10 ms	1150	A
	$T_{vj} = 180^\circ \text{C}$; 10 ms	1000	A
i^2t	$T_{vj} = 25^\circ \text{C}$; 8,3 ... 10 ms	6600	A ² s
	$T_{vj} = 180^\circ \text{C}$; 8,3 ... 10 ms	5000	A ² s
V_F	$T_{vj} = 25^\circ \text{C}$; $I_F = 200 \text{ A}$	max. 1,5	V
$V_{(TO)}$	$T_{vj} = 180^\circ \text{C}$	max. 0,85	V
r_T	$T_{vj} = 180^\circ \text{C}$	max. 3	m•
I_{RD}	$T_{vj} = 180^\circ \text{C}$; $V_{RD} = V_{RRM}$	max. 10	mA
Q_{rr}	$T_{vj} = 160^\circ \text{C}$; - di _F /dt = 10 A/s	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	to heatsink	4	Nm
a		5 * 9,81	m/s ²
m	approx.	30	g
Case		E 11	

Diagrams

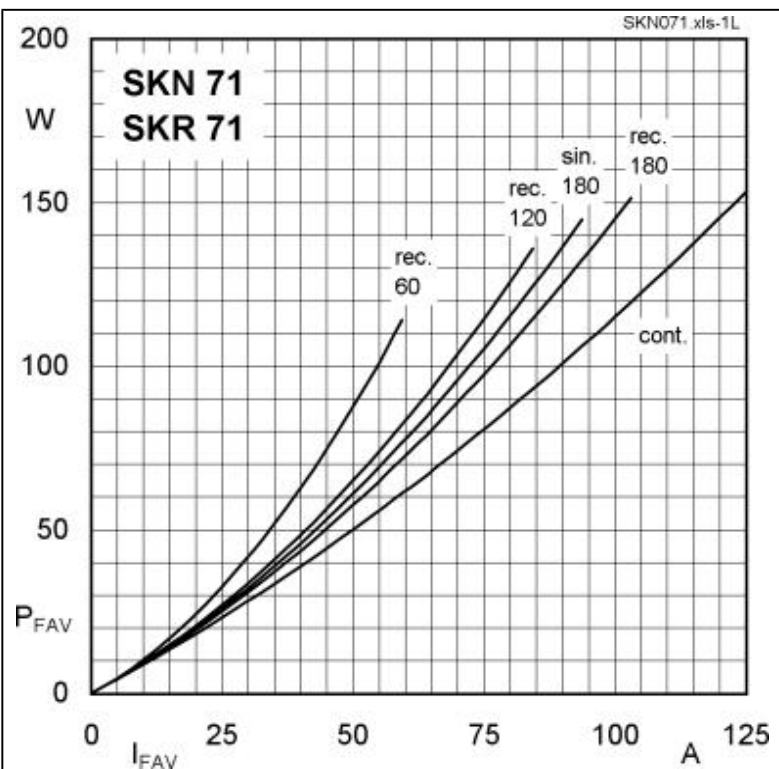


Fig. 1L Power dissipation vs. forward current

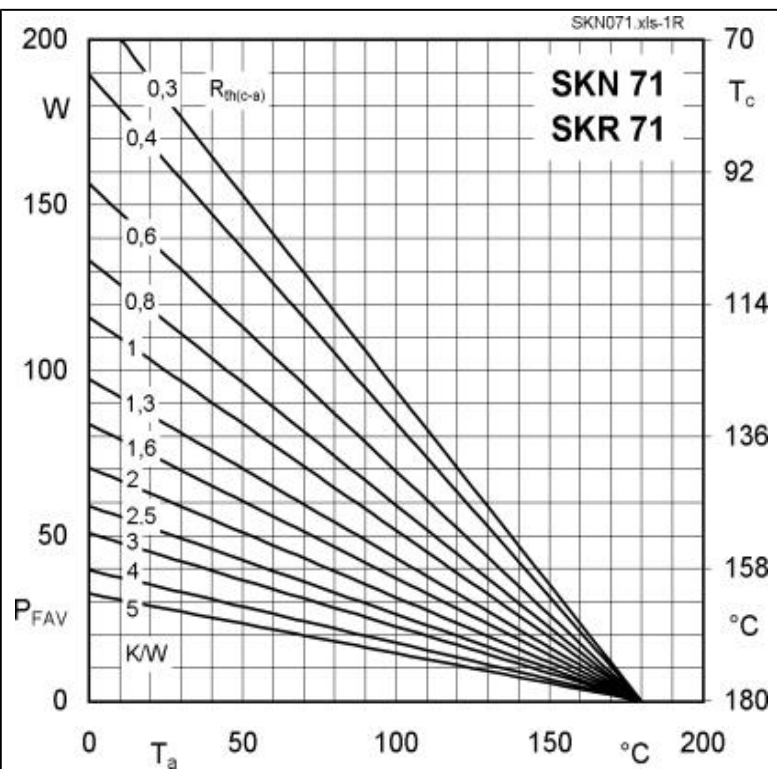


Fig. 1R Power dissipation vs. ambient temperature

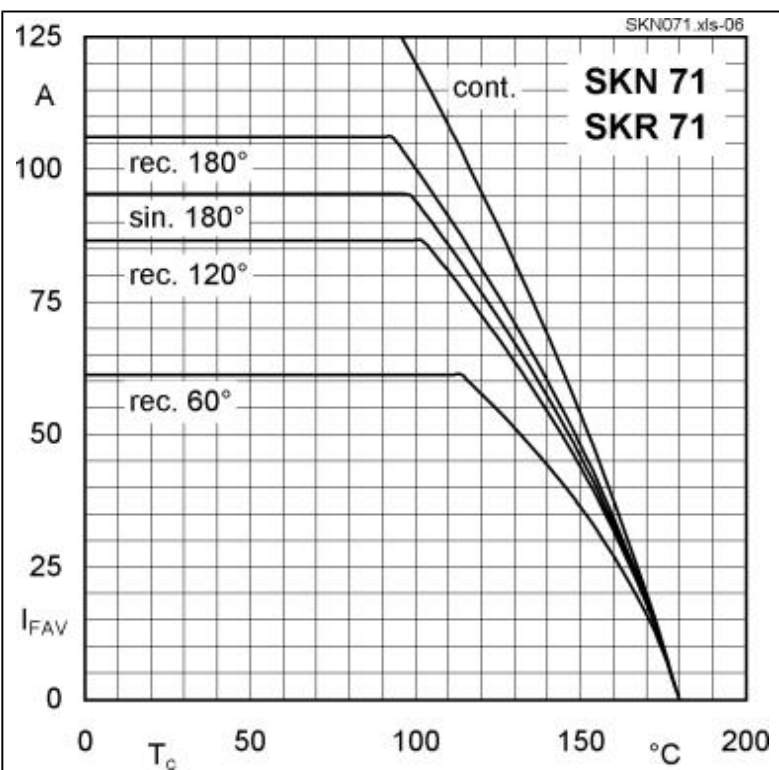


Fig. 2 Forward current vs. case temperature

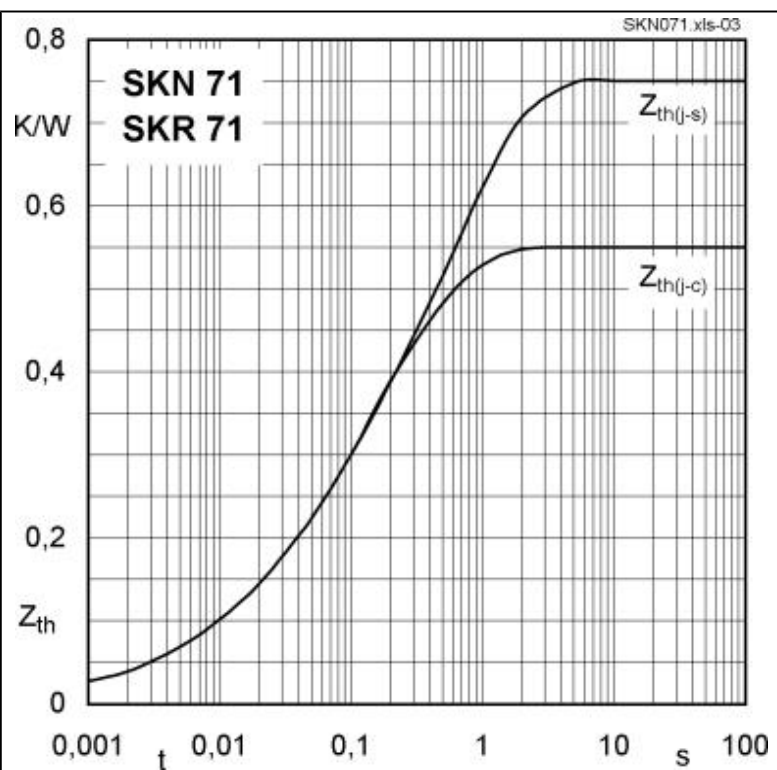


Fig. 4 Transient thermal impedance vs. time

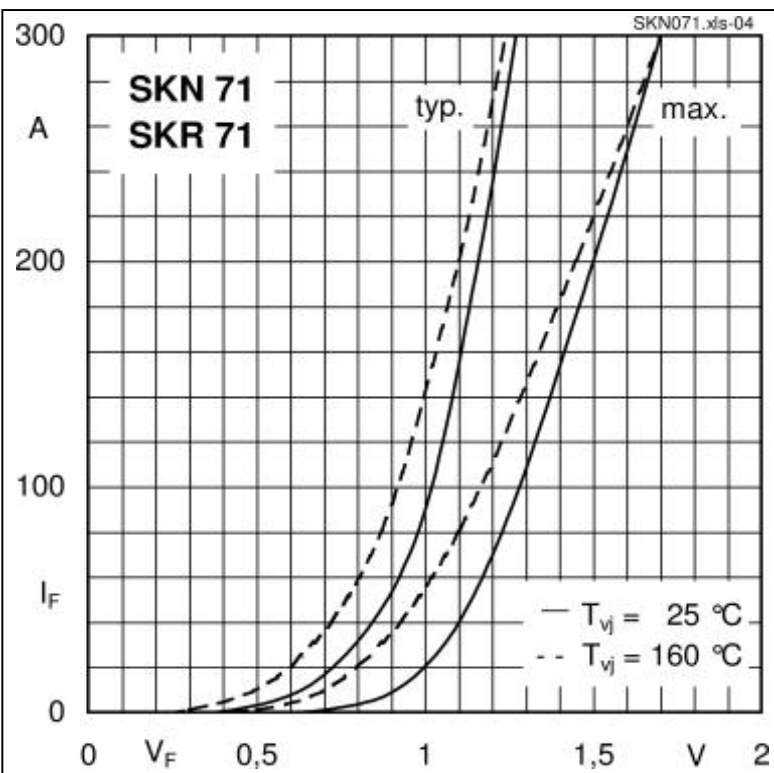


Fig. 5 Forward characteristics

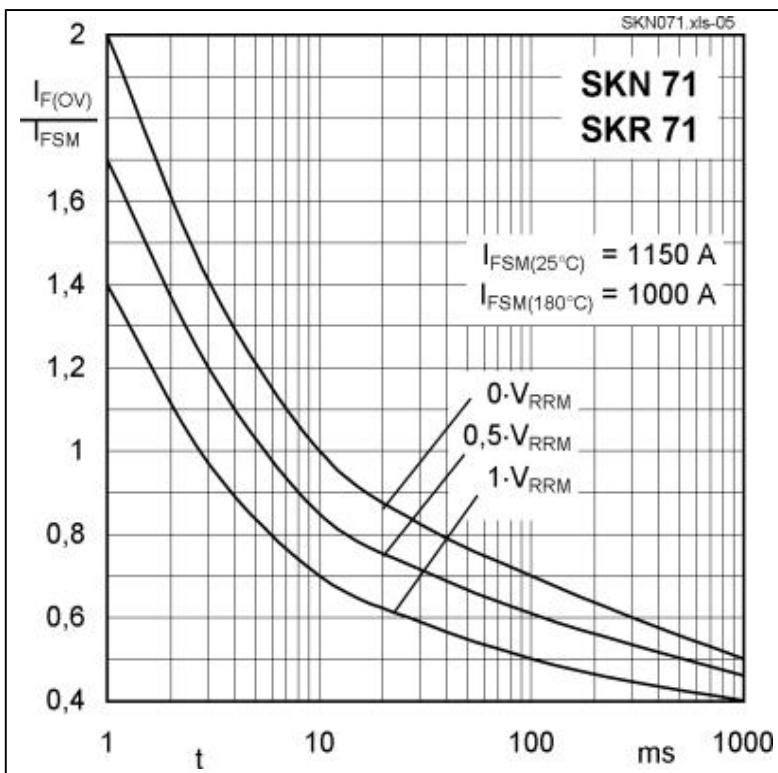


Fig. 6 Surge overload current vs. time

Cases / Circuits

