

SKN 320



Stud Diode

Rectifier Diode

SKN 320

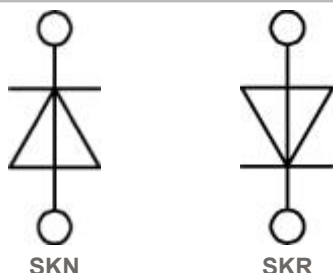
SKR 320

Features

- Reverse voltages up to 1600 V
- Hermetic metal case with glass insulator
- Threaded stud ISO M24 x 1,5
- 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 μ F, 20 Ω ($P_R = 2$ W),
 $R_p = 25$ k Ω ($P_R = 20$ W)



V_{RSM} V	V_{RRM} V	$I_{FRMS} = 700$ A (maximum value for $I_{FAV} = 320$ A (sin. 180; T	
400	400	SKN 320/04	SKR 320/04
800	800	SKN 320/08	SKR 320/08
1200	1200	SKN 320/12	SKR 320/12
1400	1400	SKN 320/14	SKR 320/14
1600	1600	SKN 320/16	SKR 320/16
Symbol	Conditions		
I_{FAV}	sin. 180; $T_c = 85$ (100) °C		
I_D	P 1/200; $T_a = 45$ °C; B2 / B6 K 0,55F; $T_a = 35$ °C; B2 / B6		
I_{FSM}	$T_{vj} = 25$ °C; 10 ms $T_{vj} = 180$ °C; 10 ms		
i^2t	$T_{vj} = 25$ °C; 8,3 ... 10 ms $T_{vj} = 180$ °C; 8,3 ... 10 ms		
V_F	$T_{vj} = 25$ °C; $I_F = 1000$ A		
$V_{(TO)}$	$T_{vj} = 180$ °C		
r_T	$T_{vj} = 180$ °C		
I_{RD}	$T_{vj} = 180$ °C; $V_{RD} = V_{RRM}$		
Q_{rr}	$T_{vj} = 160$ °C; $-di_F/dt = 10$ A/ μ s		
$R_{th(j-c)}$			
$R_{th(c-s)}$			
T_{vj}			
T_{stg}			
V_{isol}	to heatsink		
M_s			
a	approx.		
m			
Case			

Diagrams

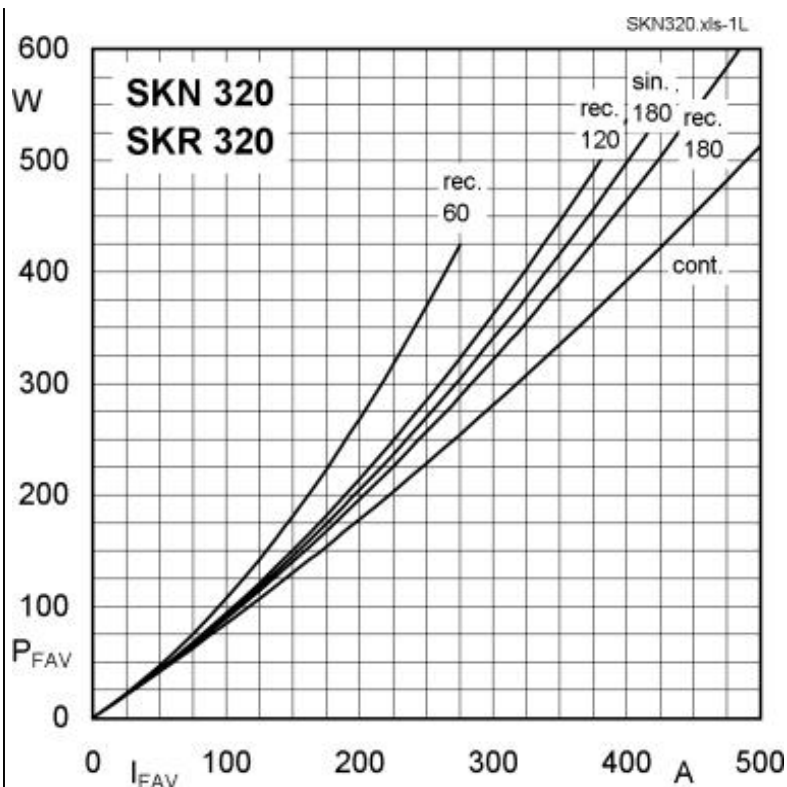


Fig. 1L Power dissipation vs. forward current

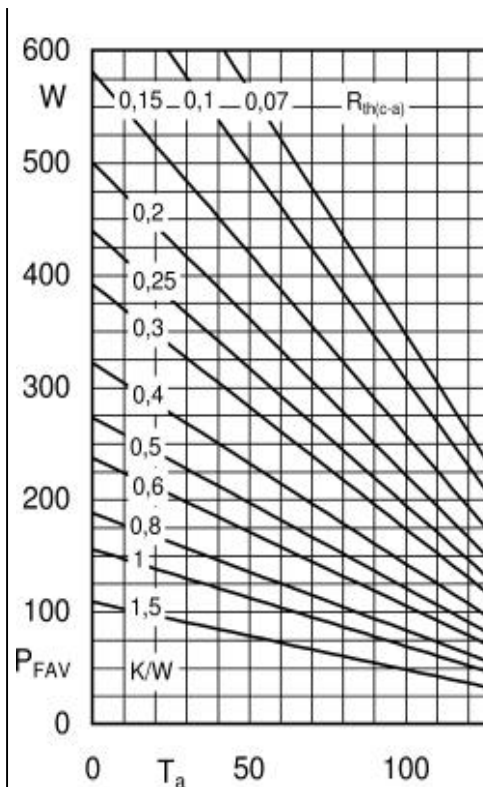


Fig. 1R Power dissipation vs. ambient temper

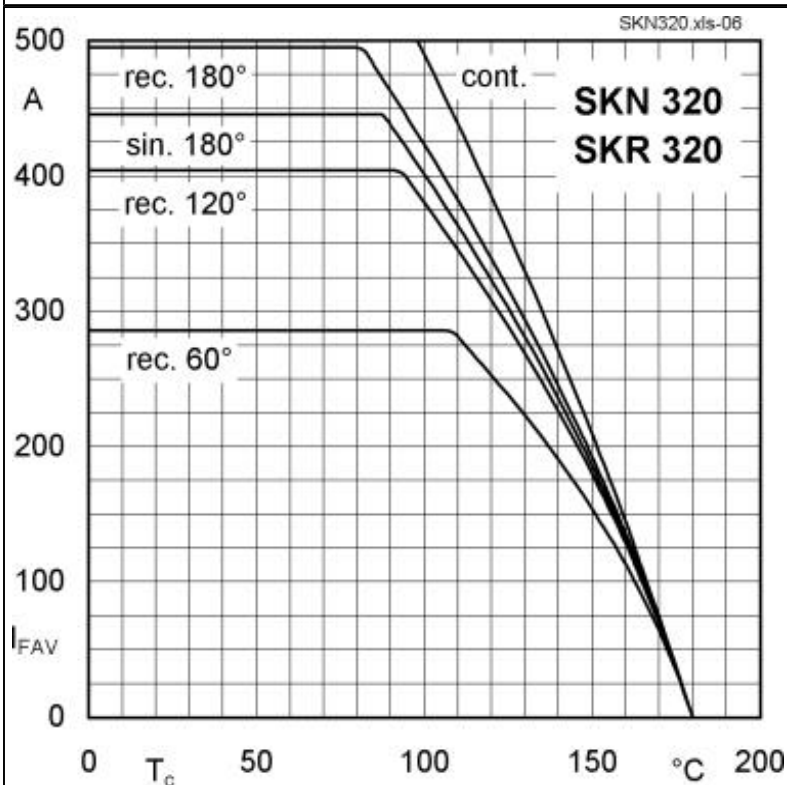


Fig. 2 Forward current vs. case temperature

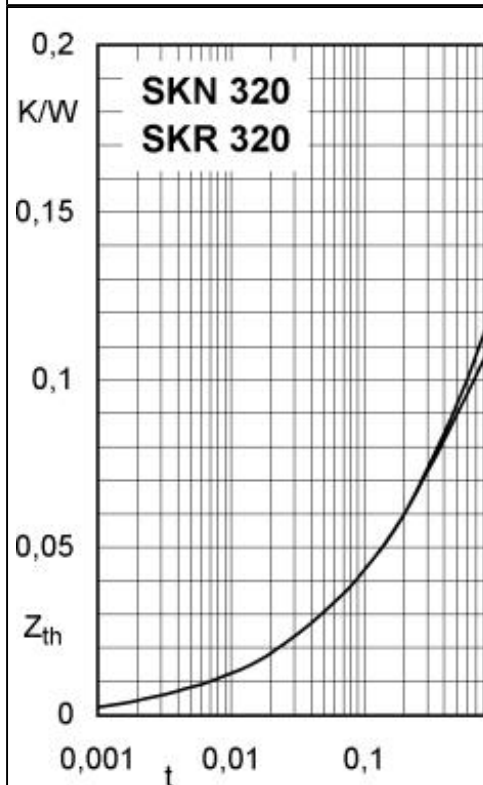


Fig. 4 Transient thermal impedance vs. time

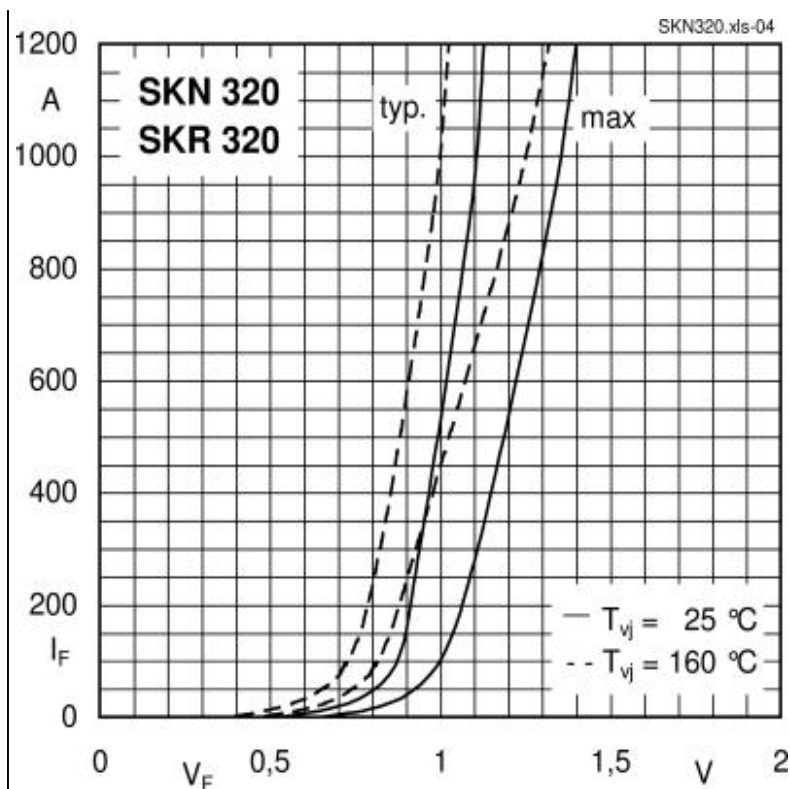


Fig. 5 Forward characteristics

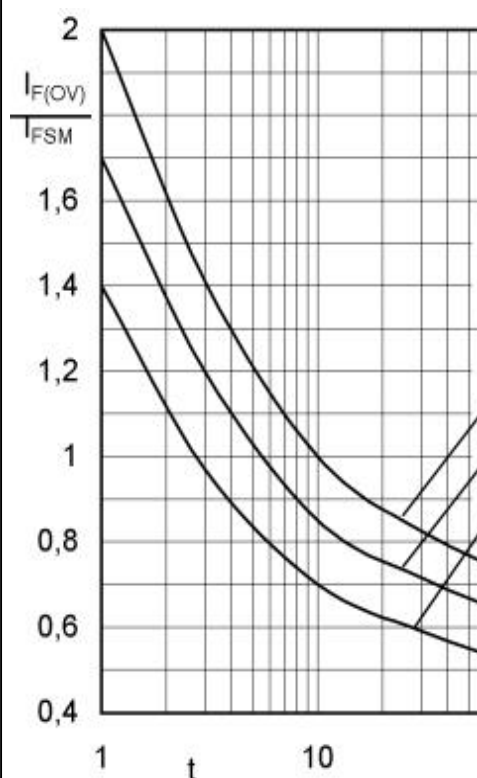
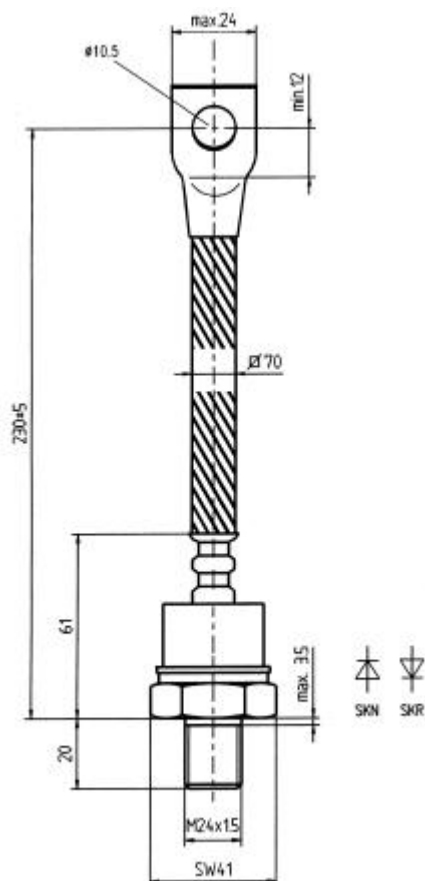


Fig. 6 Surge overload current vs. time

Cases / Circuits



Case E 16 (IEC 60191: A 22 B)
