Stud Diode

Rectifier Diode

SKN 240

SKR 240

V_{RSM} V	V_{RRM} V	I_{FRMS} = 500 A (maximum value for continuous operation) I_{FAV} = 240 A (sin. 180; T_c = 125 °C)		
400	400	SKN 240/04	SKR 240/04	
800	800	SKN 240/08	SKR 240/08	
1200	1200	SKN 240/12	SKR 240/12	
1400	1400	SKN 240/14	SKR 240/14	
1600	1600	SKN 240/16	SKR 240/16	
1800	1800	SKN 240/18	SKR 240/18	

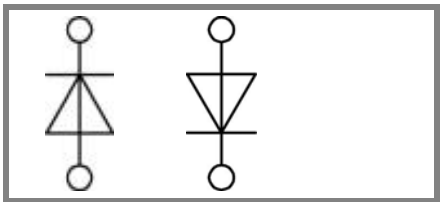
Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; T_c = 100 °C	320	A
I_D	K 0,55; T_a = 45 °C; B2 / B6	340 / 480	A
	K 0,55F; T_a = 35 °C; B2 / B6	620 / 840	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	6000	A
	T_{vj} = 180 °C; 10 ms	5000	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	180000	A^2s
	T_{vj} = 180 °C; 8,3 ... 10 ms	125000	A^2s
V_F	T_{vj} = 25 °C; I_F = 750 A	max. 1,4	V
$V_{(TO)}$	T_{vj} = 180 °C	max. 0,85	V
r_T	T_{vj} = 180 °C	max. 0,6	mΩ
I_{RD}	T_{vj} = 180 °C; V_{RD} = V_{RRM}	max. 60	mA
Q_{rr}	T_{vj} = 160 °C; - di_F/dt = 10 A/µs	200	µC
$R_{th(j-c)}$		0,2	K/W
$R_{th(c-s)}$		0,03	K/W
T_{vj}		- 40 ... + 180	°C
T_{stg}		- 55 ... + 180	°C
V_{isol}		-	V~
M_s	to heatsink	30	Nm
a		5 * 9,81	m/s²
m	approx.	250	g
Case		E 15	

Features

- Reverse voltages up to 1800 V
- Hermetic metal case with glass insulator
- Threaded stud ISO M16 x 1,5
- SKN / SKR 240/04 ... /16 also available with threaded stud 3/4 - 16 UNF (e.g. SKR 240/12 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: 0,5 µF, 30 Ω (P_R = 2W), R_P = 50 kΩ (P_R = 20 W)



SKN SKR

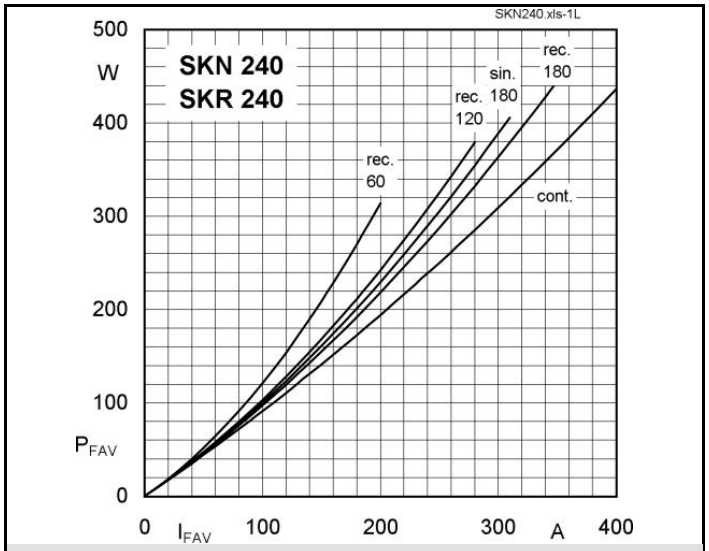


Fig. 1L Power dissipation vs. forward current

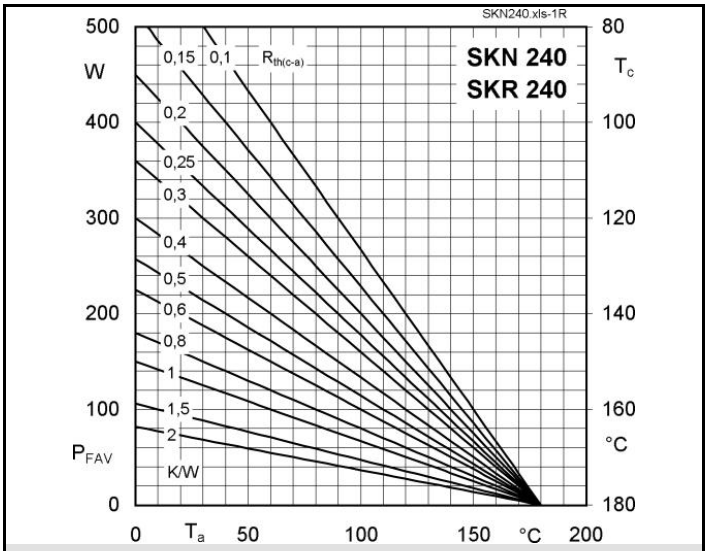


Fig. 1R Power dissipation vs. ambient temperature

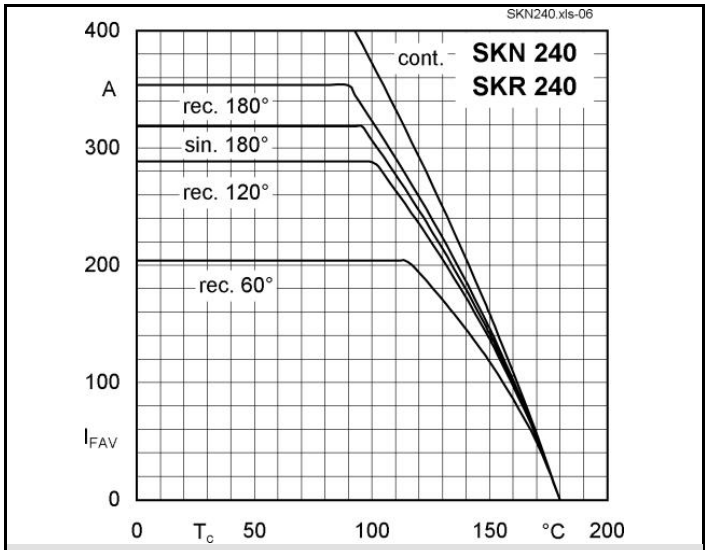


Fig. 2 Forward current vs. case temperature

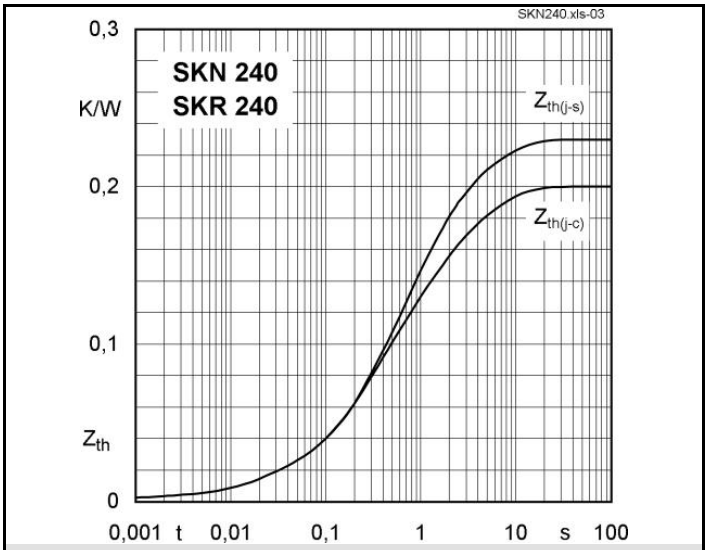


Fig. 4 Transient thermal impedance vs. time

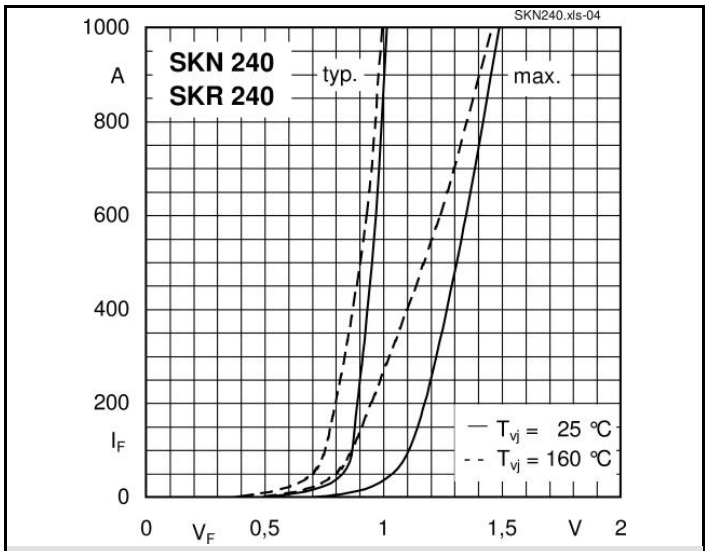


Fig. 5 Forward characteristics

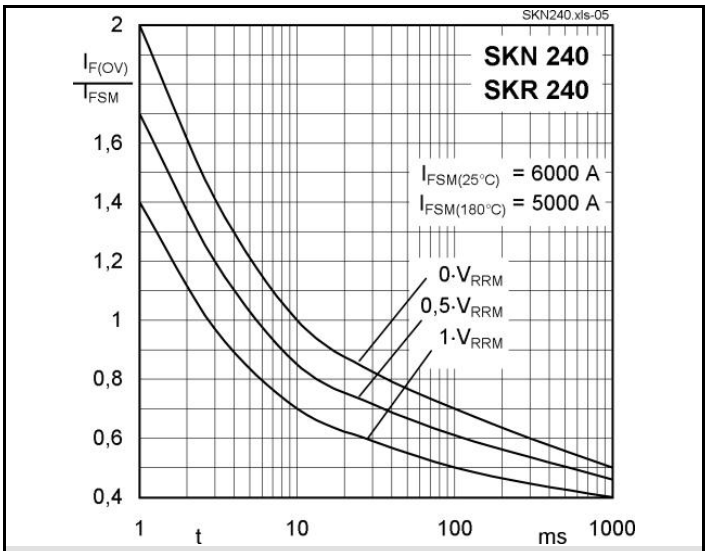
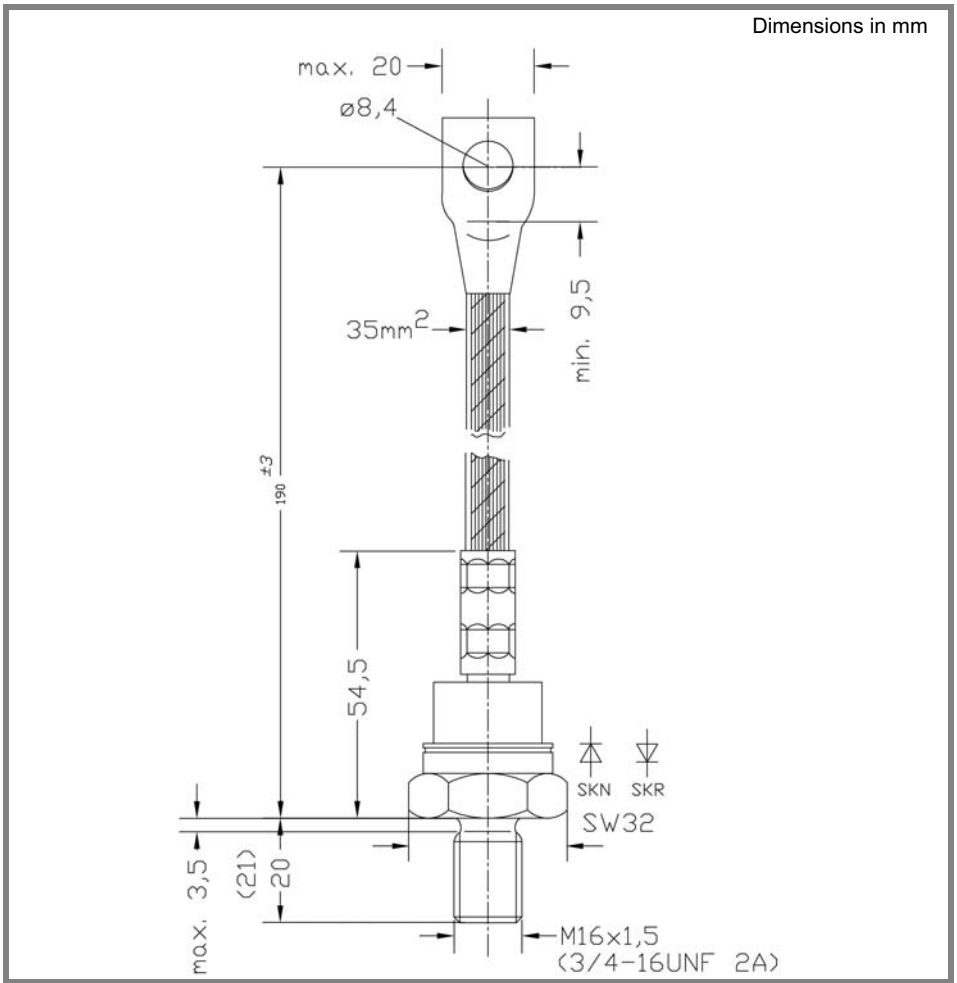


Fig. 6 Surge overload current vs. time



Case E 15 (IEC 60191: A 15 M; JEDEC: DO-205 AB)

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.

