SKN 240, SKR 240

Stud Diode

V_{RSM} V	V_{RRM} V	I_{FRMS} = 500 A (maximum value for continuous operation) I_{FAV} = 240 A (sin. 180; T_c = 122 ºC)	
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

Rectifier Diode

SKN 240
SKR 240

Features

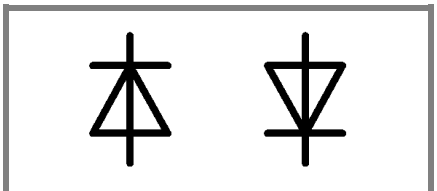
- Reverse voltages up to 1800 V
- Hermetic metal case with glass insulator
- Cooling via heatsinks
- Threaded stud ISO M16 x 1,5, M20 x 1,5[2)] or ¾ - 16 UNF 2A[2)]
- **SKN:** anode to stud
- **SKR:** cathode to stud

Typical Applications *

- All purpose high power rectifier diodes
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:
  R_C: 0,5 µF, 30 Ω (P_R = 2W),
  R_p: 50 kΩ (P_R = 20 W)

1) Mounting with grease-like thermal compound or joint contact compound
2) M16x1,5 is standard, "UNF" should be added in description for ¾ - 16 UNF thread, while "M20" must be added for M20x1,5
3) To include silicone sleeve, "C/ ESPAG." Should be added in description.

Symbol	Condition	Values	Units
I_{FAV}	sin. 180 ; T_C = 95 ºC	320	A
I_D	P 1/120; T_a = 50°C; B2 / B6	279 / 404	A
	P 1/120F; T_a = 40°C; B2 / B6	535 / 762	A
I_{FSM}	T_{vj} = 25º C ; 10 ms	6000	A
	T_{vj} = 180º C ; 10 ms	5000	A
i^2t	T_{vj} = 25º C ; 8,3...10 ms	180000	A^2s
	T_{vj} = 180º C ; 8,3...10 ms	125000	A^2s
V_F	T_{vj} = 25º C, I_F = 750 A	max. 1,4	V
$V_{(TO)}$	T_{vj} = 180º C	max. 0,85	V
r_T	T_{vj} = 180º C	max. 0,6	mΩ
I_{RD}	T_{vj} = 180º 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	M16 or ¾-16 UNF Stud	30	Nm
	M20 Stud	40	Nm
	M16 or ¾-16 UNF Stud (lubricated)[1)]	22,5	Nm
	M20 Stud (lubricated)[1)]	30	Nm
a		5 * 9,81	m/s^2
m	approx.	250	g
Case		E 15	



SKN SKR

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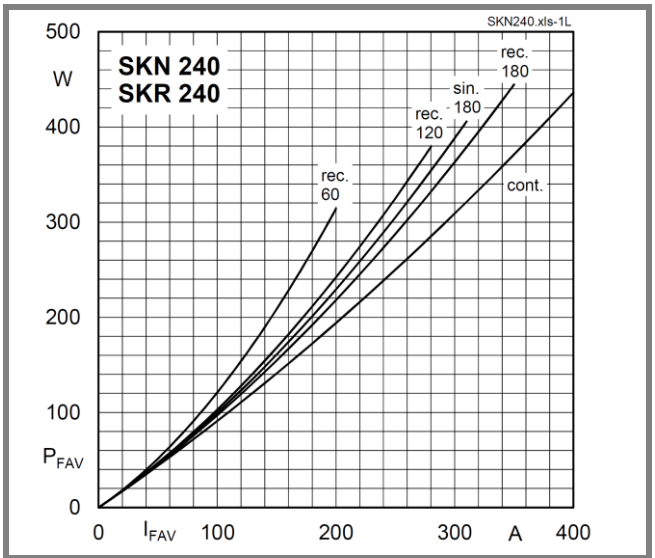

Fig. 1L Power dissipation vs. forward current

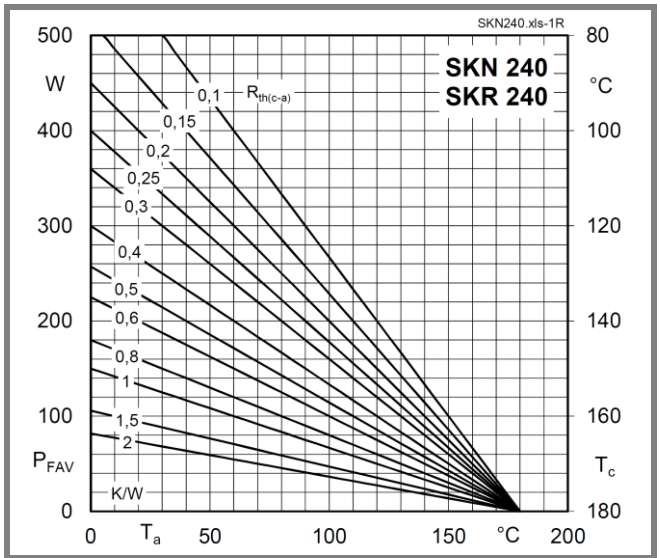

Fig. 1R Power dissipation vs. ambient temperature

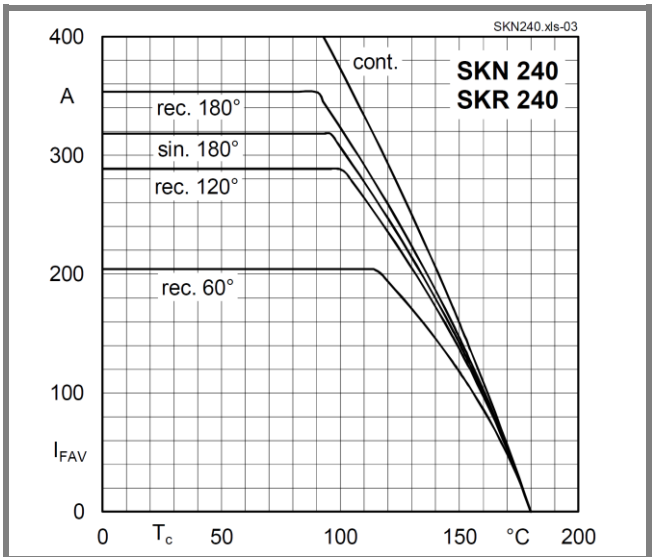

Fig. 3 Forward current vs. case temperature

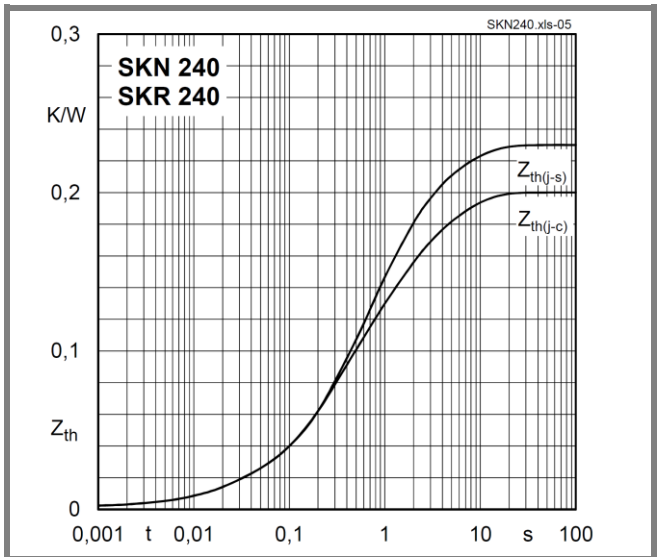

Fig. 5 Transient thermal impedance vs. time

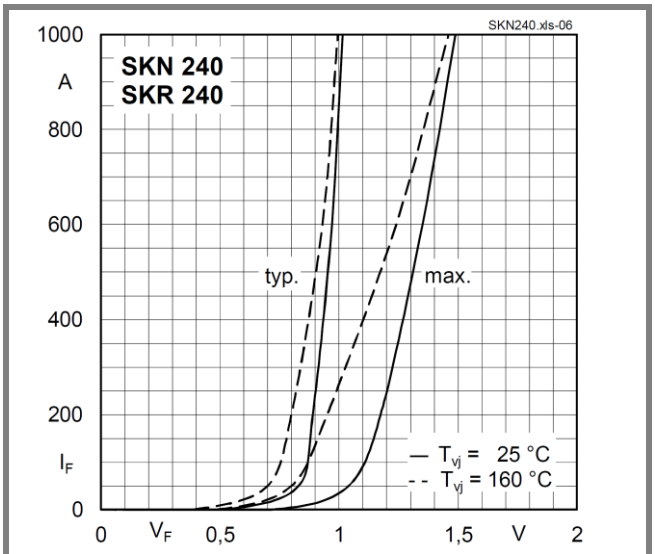

Fig. 6 Forward characteristics

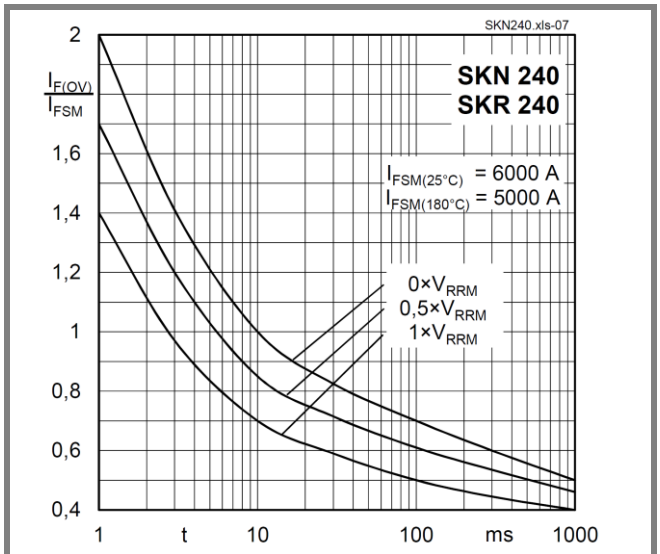

Fig. 7 Surge overload current vs. time

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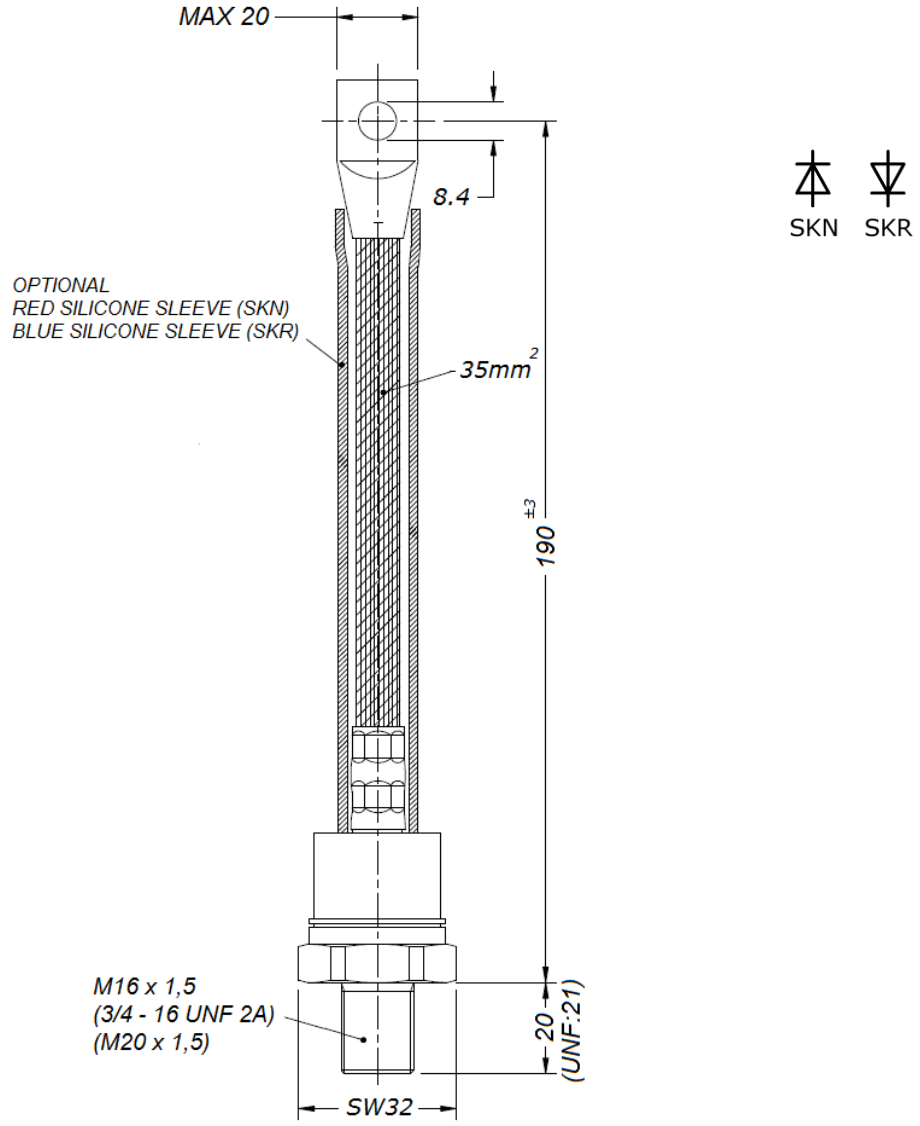
Dimensions in mm



Case E15 (IEC 60191: A 15 M; JEDEC: DO-205 AB)

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