

# 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; $T_c = 122$ °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

## 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<sup>2)</sup> or ¾ - 16 UNF 2A<sup>2)</sup>
- **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:  
 $R_C: 0,5 \mu F, 30 \Omega (P_R = 2W),$   
 $R_p: 50 k\Omega (P_R = 20 W)$

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 ; $T_c = 95$ °C	320	A
$I_D$	P 1/120; $T_a = 50$ °C; B2 / B6 P 1/120F; $T_a = 40$ °C; B2 / B6	279 / 404 535 / 762	A A
$I_{FSM}$	$T_{vj} = 25$ °C ; 10 ms $T_{vj} = 180$ °C ; 10 ms	6000 5000	A A
$i^2t$	$T_{vj} = 25$ °C ; 8,3...10 ms $T_{vj} = 180$ °C ; 8,3...10 ms	180000 125000	A <sup>2</sup> s A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °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~
$M_s$	M16 or ¾-16 UNF Stud M20 Stud M16 or ¾-16 UNF Stud (lubricated) <sup>1)</sup> M20 Stud (lubricated) <sup>1)</sup>	30 40 22,5 30	Nm Nm Nm Nm
a		5 * 9,81	m/s <sup>2</sup>
m	approx.	250	g
Case		E 15	



SKN



SKR

# SKN 240, SKR 240

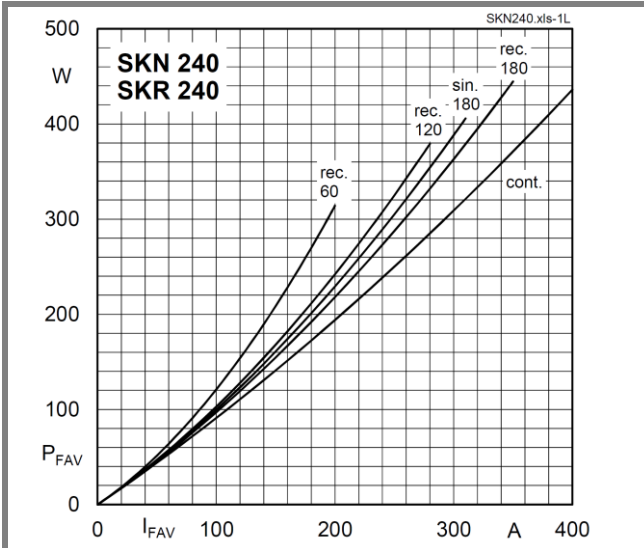


Fig. 1L Power dissipation vs. forward current

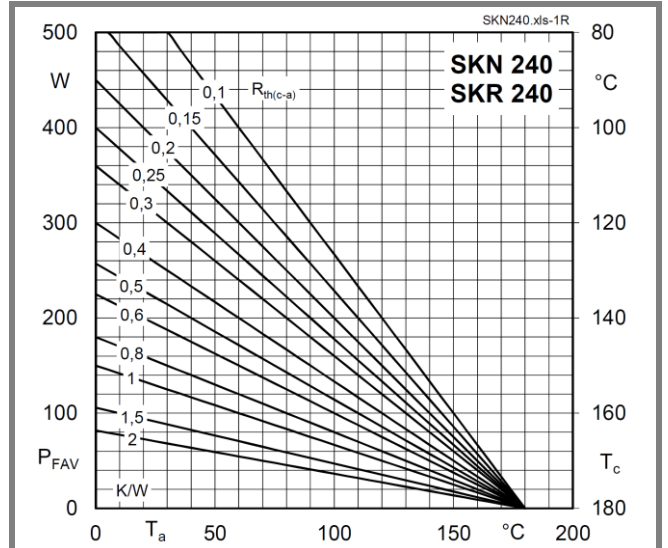


Fig. 1R Power dissipation vs. ambient temperature

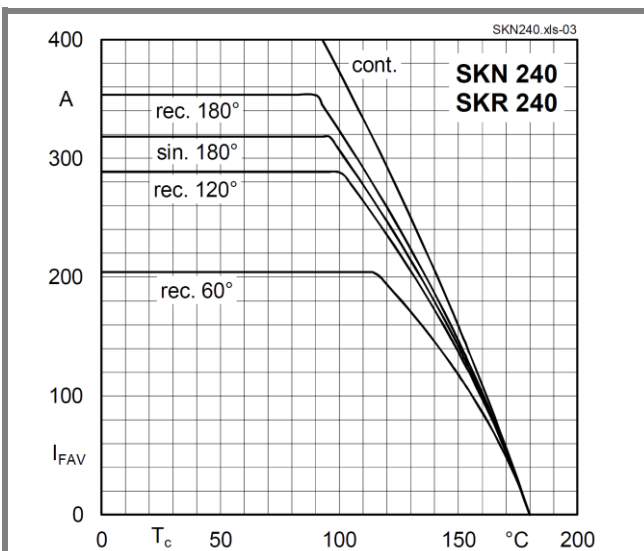


Fig. 3 Forward current vs. case temperature

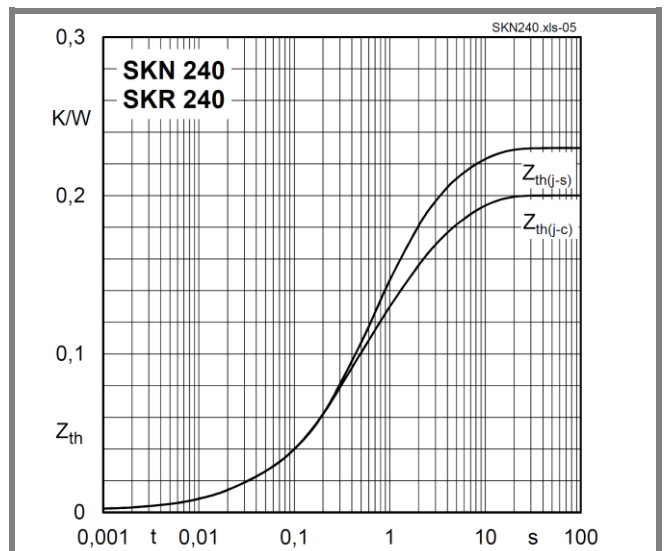


Fig. 5 Transient thermal impedance vs. time

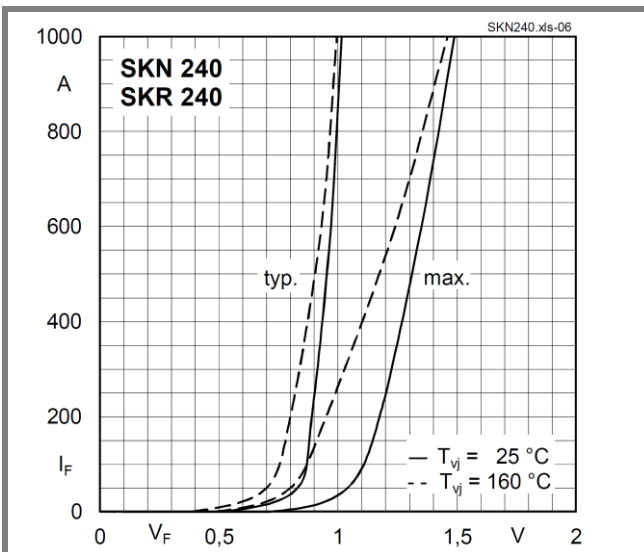


Fig. 6 Forward characteristics

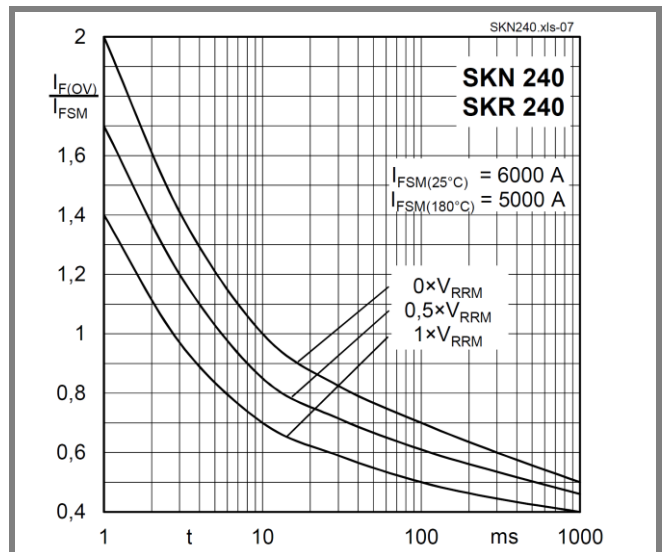
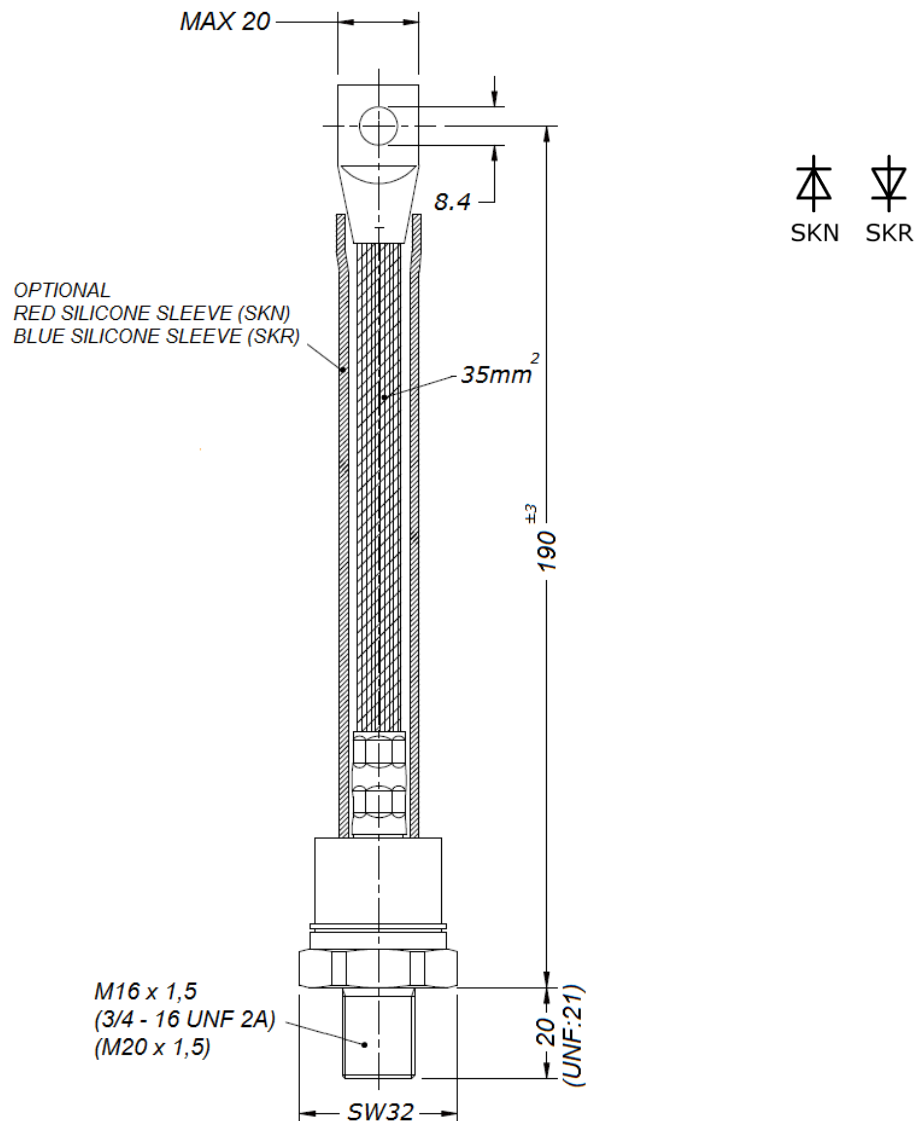


Fig. 7 Surge overload current vs. time



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

## \*IMPORTANT INFORMATION AND WARNINGS

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