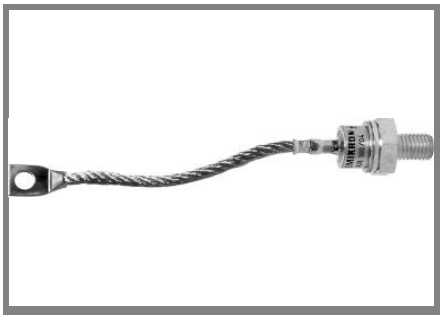
SKN 130

THYRISTOR BRIDGE,SCR BRIDGE



Stud Diode

Rectifier Diode

SKN 130

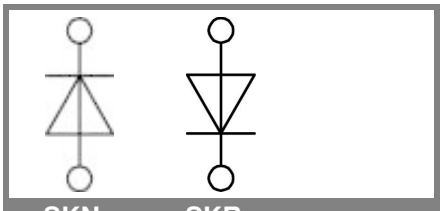
SKR 130

Features

- Reverse voltages up to 1800 V
- Hermetic metal case with glass insulator
- Threaded stud ISO M12 (also 1/2 - 20 UNF, 3/8 - 24 UNF and M12 x 1,5)
- SKN: anode to stud, SKR: cathode to stud

Typical Applications*

- All-purpose mean power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifier
- Free-wheeling diodes
- Recommended snubber network: RC: 0,25 µF, 50 Ω, (P_R = 2 W), R_P = 50 kΩ (P_R = 20 W)



SKN SKR

V_{RSM} V	V_{RRM} V	I_{FRMS} = 260 A (maximum value for continuous operation) I_{FAV} = 130 A (sin. 180; T_c = 125 °C)		
400	400	SKN 130/04	SKR 130/04	
800	800	SKN 130/08	SKR 130/08	
1200	1200	SKN 130/12	SKR 130/12	
1400	1400	SKN 130/14	SKR 130/14	
1600	1600	SKN 130/16	SKR 130/16	
1800	1800	SKN 130/18	SKR 130/18	

Symbol	Conditions	Values	Units
I_{FAV}	sin. 180; T_c = 100 °C	165	A
I_D	K 1,1; T_a = 45 °C; B2 / B6	160 / 225	A
	K 1,1F; T_a = 35 °C; B2 / B6	290 / 405	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	2500	A
	T_{vj} = 180 °C; 10 ms	2000	A
i²t	T_{vj} = 25 °C; 8,3 ... 10 ms	31000	A²s
	T_{vj} = 180 °C; 8,3 ... 10 ms	20000	A²s
V_F	T_{vj} = 25 °C; I_F = 500 A	max. 1,5	V
$V_{(TO)}$	T_{vj} = 180 °C	max. 0,85	V
r_T	T_{vj} = 180 °C	max. 1,3	mΩ
I_{RD}	T_{vj} = 180 °C; V_{RD} = V_{RRM}	max. 22	mA
Q_{rr}	T_{vj} = 160 °C; - di_F/dt = 10 A/µs	120	µC
$R_{th(j-c)}$		0,35	K/W
$R_{th(c-s)}$		0,08	K/W
T_{vj}		- 40 ... + 180	°C
T_{stg}		- 55 ... + 180	°C
V_{isol}		-	V~
M_s	to heatsink	10	Nm
a		5 * 9,81	m/s²
m	approx.	100	g
Case		E 14	

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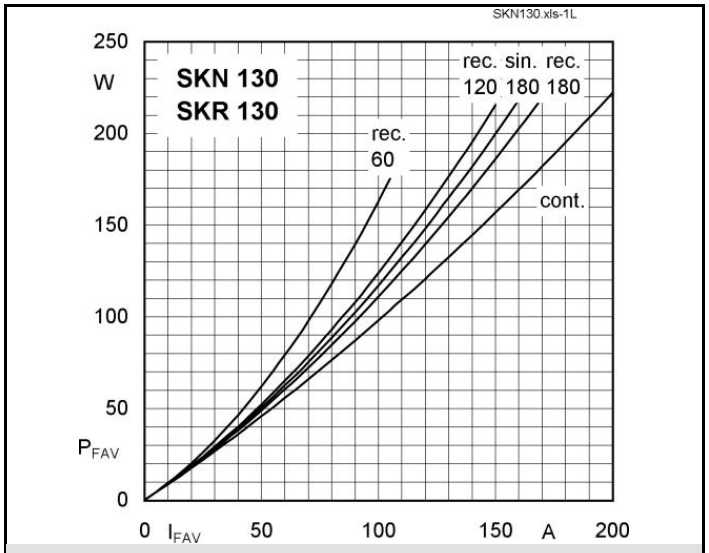


Fig. 1L Power dissipation vs. forward current

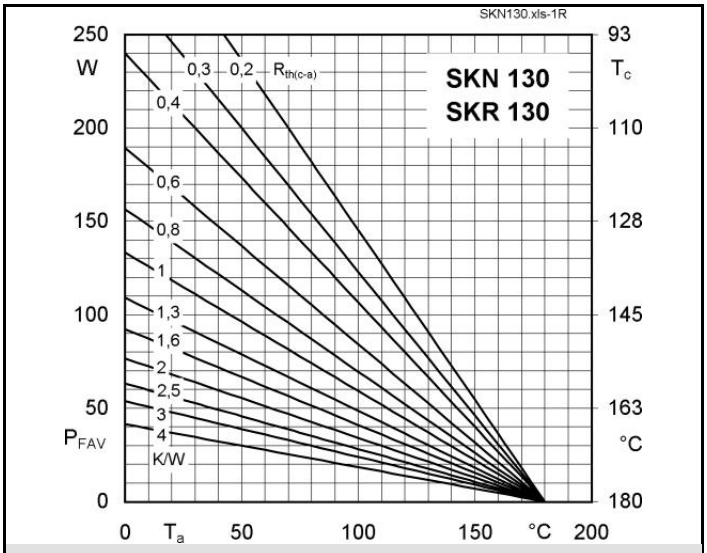


Fig. 1R Power dissipation vs. ambient temperature

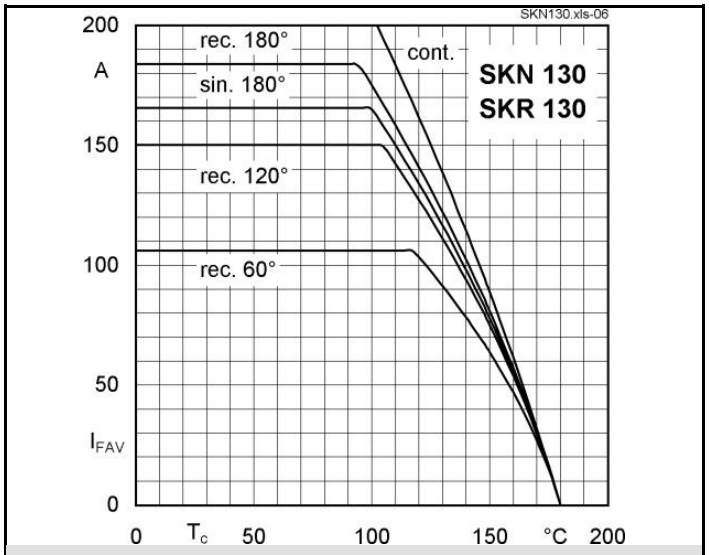


Fig. 2 Forward current vs. case temperature

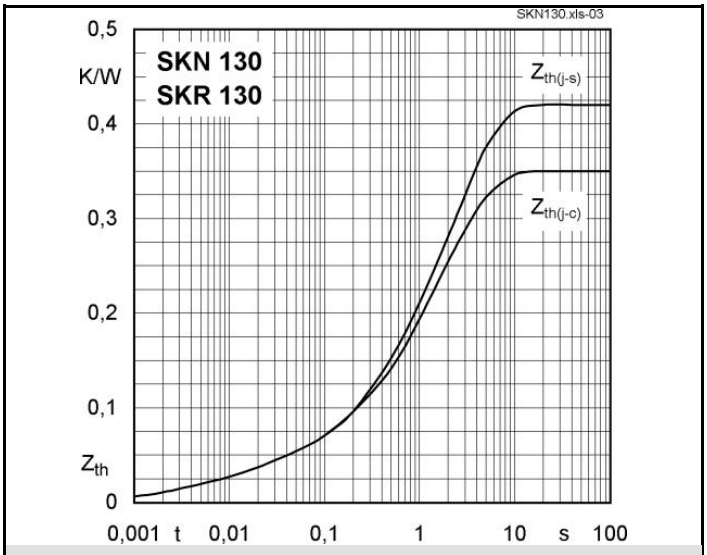


Fig. 4 Transient thermal impedance vs. time

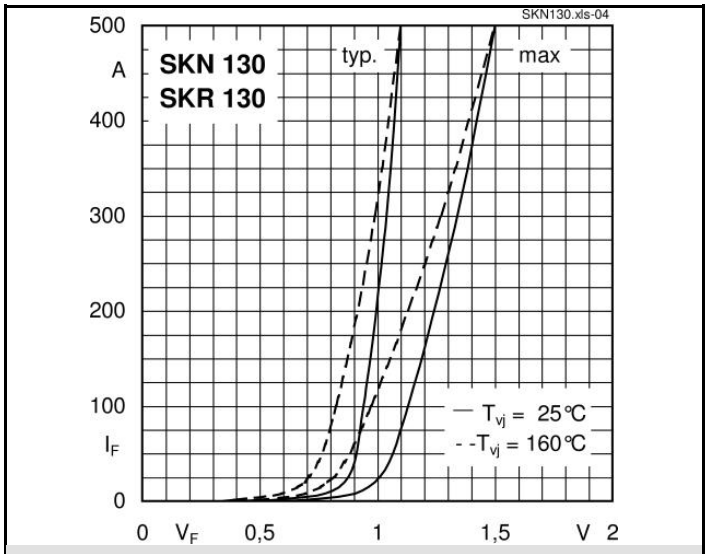


Fig. 5 Forward characteristics

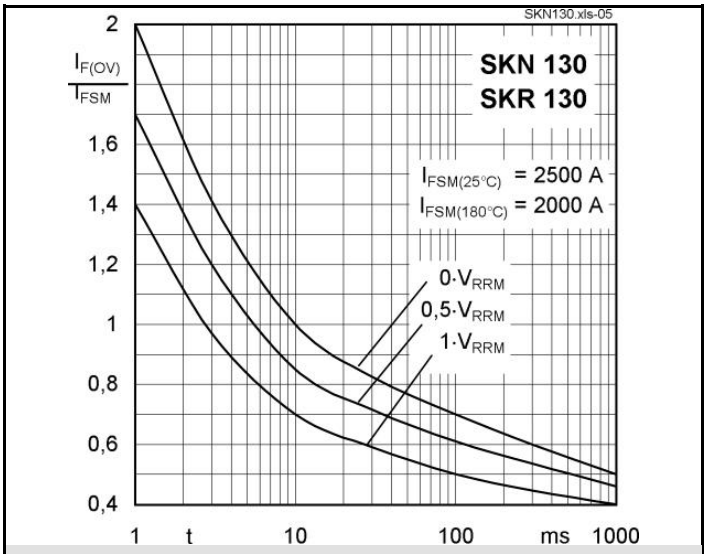
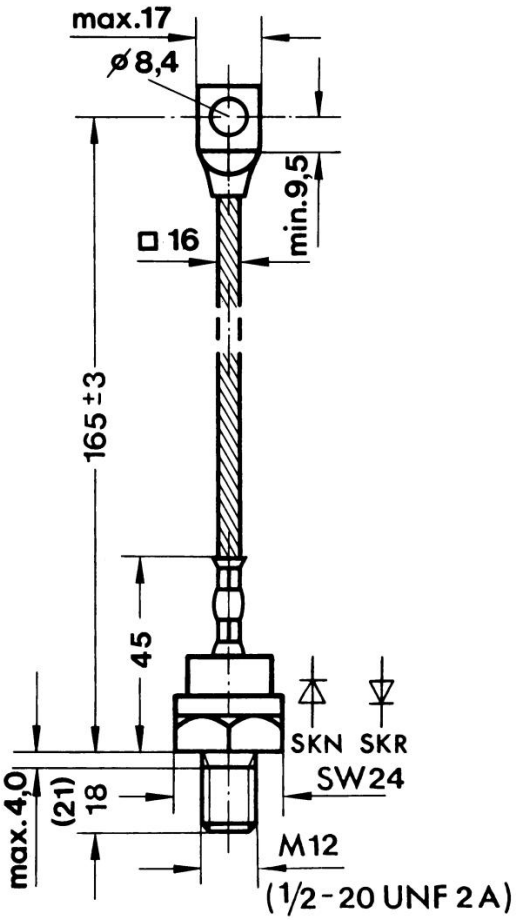


Fig. 6 Surge overload current vs. time

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Dimensions in mm



Case E 14 (IEC 60191: A 9 MA modifed; JEDEC: DO-205 AC)

* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.

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