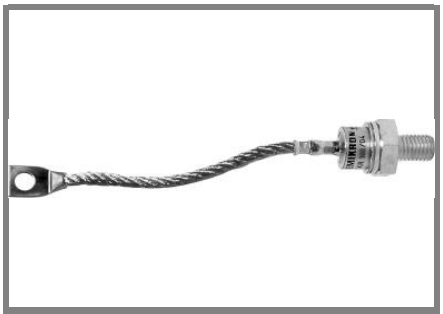
SKN 130



Stud Diode

Rectifier Diode

SKN 130

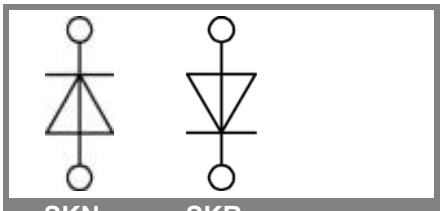
SKR 130

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
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms	31000	A^2s
	T_{vj} = 180 °C; 8,3 ... 10 ms	20000	A^2s
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	

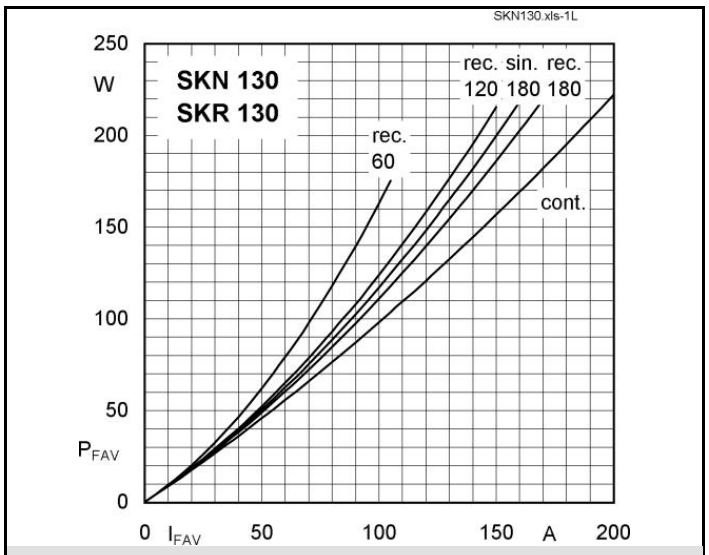


Fig. 1L Power dissipation vs. forward current

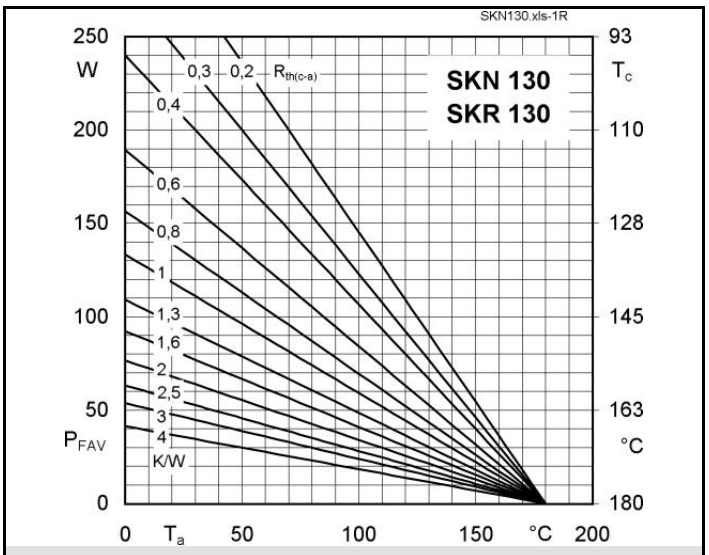


Fig. 1R Power dissipation vs. ambient temperature

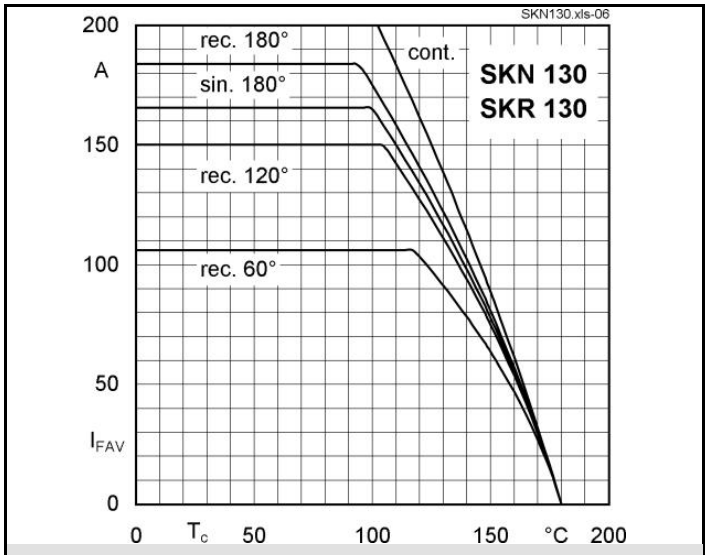


Fig. 2 Forward current vs. case temperature

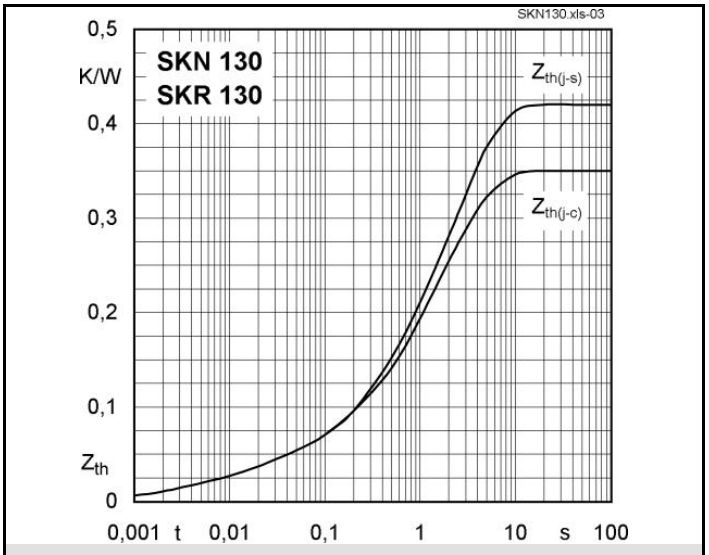


Fig. 4 Transient thermal impedance vs. time

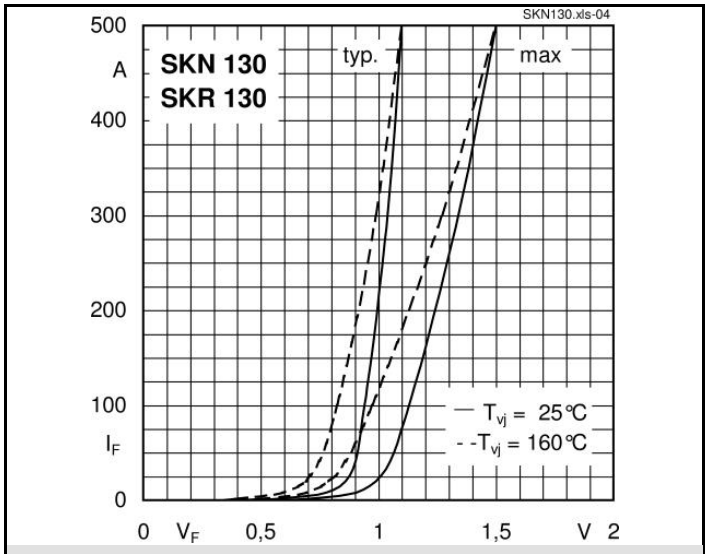


Fig. 5 Forward characteristics

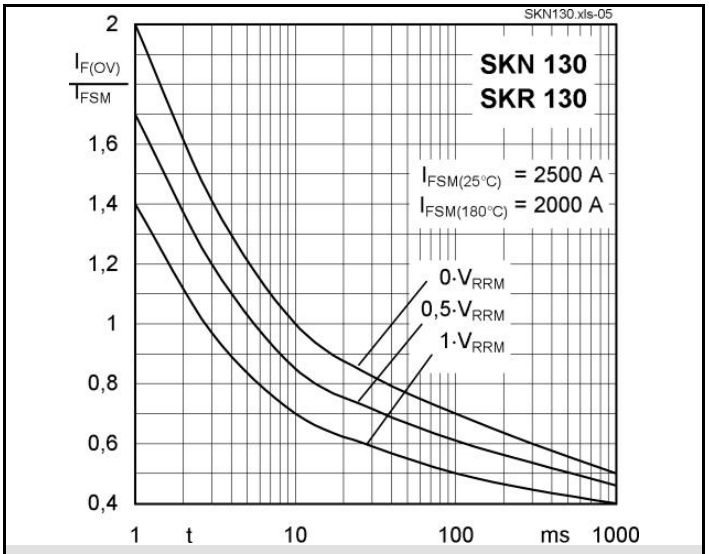
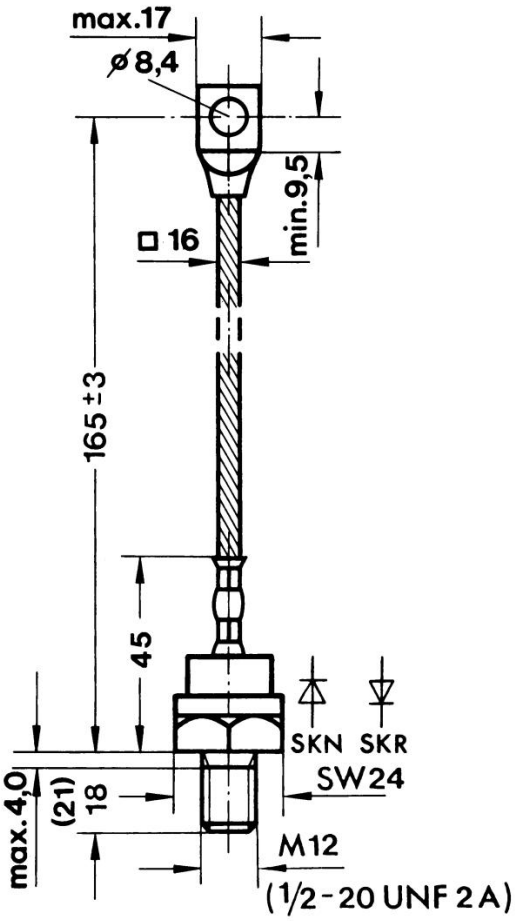


Fig. 6 Surge overload current vs. time

Dimensions in mm



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

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

