SKN 133

Stud Diode

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 133/04	SKR 133/04
800	800	SKN 133/08	SKR 133/08
1200	1200	SKN 133/12	SKR 133/12
1400	1400	SKN 133/14	SKR 133/14
1600	1600	SKN 133/16	SKR 133/16
1800	1800	SKN 133/18	SKR 133/18

Rectifier Diode

SKN 133
SKR 133

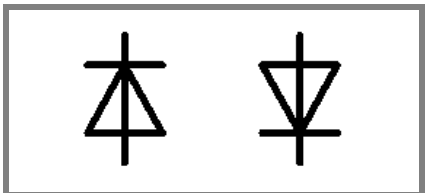
Features

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

Typical Applications *

- All-purpose high power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:
  R_C: 0,25 F, 50 W (P_R = 2W),
  R_p: 50 kW (P_R = 20 W)

Symbol	Condition	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	mW
I_{RD}	T_{vj} = 180” C ; V_R = V_{RRM}	max. 22	mA
Q_{rr}	T_{vj} = 160 C, -di$_F$/dt = 10 A/ s	typ. 120	C
$R_{th(j-c)}$		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/s^2
m	approx.	100	g
Case		E14	



SKN SKR

Fig. 1L Power dissipation vs. forward current

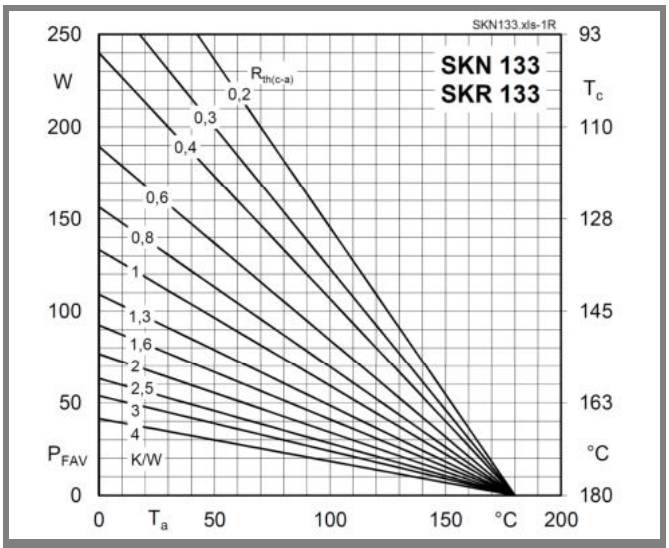


Fig. 1R Power dissipation vs. ambient temperature

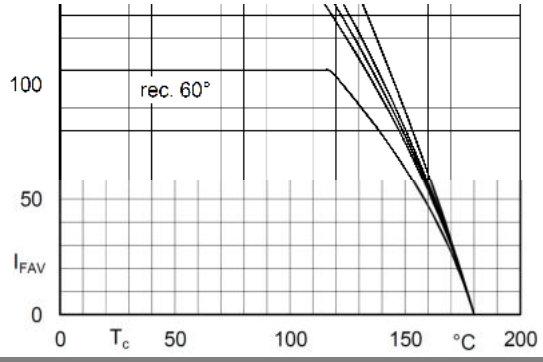


Fig. 2 Forward current vs. case temperature

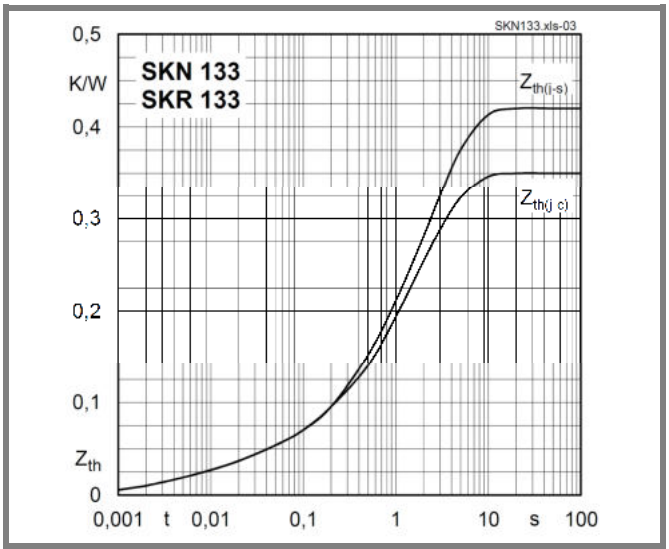


Fig. 4 Transient thermal impedance vs. time

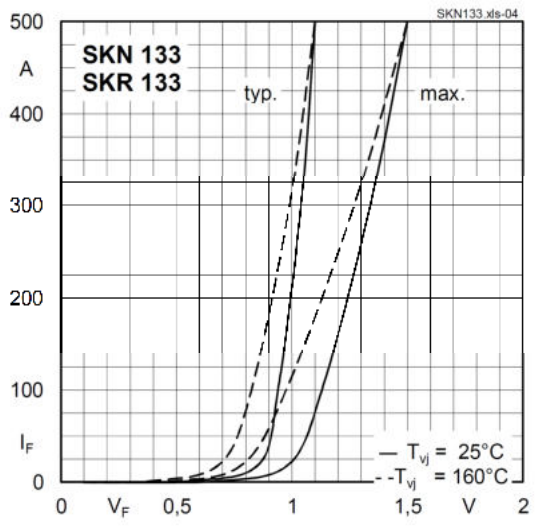


Fig. 5 Forward characteristics

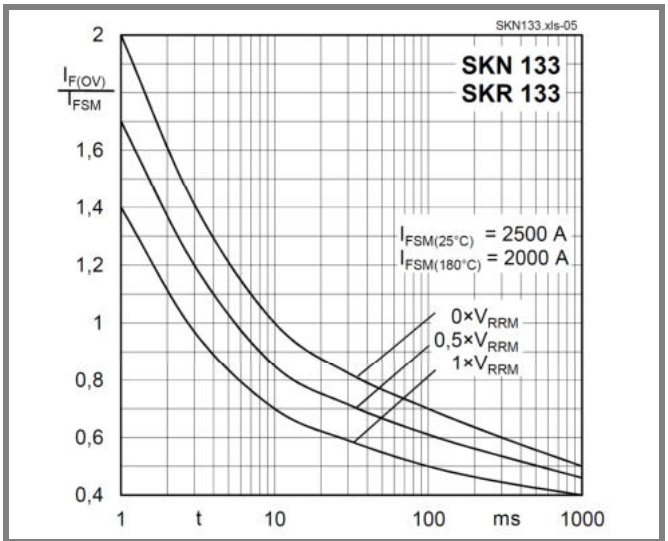


Fig. 6 Surge overload current vs. time

Dimensions in mm

Standard Version

Strap Version

Case E14 (IEC 60191: A 9 MA modified; JEDEC: DO-205 AC)