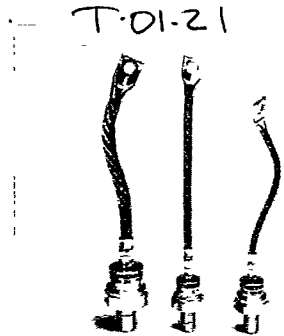


| V _{RRM} V _{RRM} V | I _{FRMS} (maximum values for continuous operation) | | |
|---|---|-------------|------------|
| | 200 A | 260 A | 500 A |
| | I _{FAV} (sin. 180; T _{case} = 100 °C) | | |
| | 125 A | 165 A | 320 A |
| 200 | SKN 100/02 | SKN 130/02 | SKN 240/02 |
| 400 | SKN 100/04 | SKN 130/04 | SKN 240/04 |
| 800 | SKN 100/08 | SKN 130/08 | SKN 240/08 |
| 1200 | SKN 100/12 | SKN 130/12 | SKN 240/12 |
| 1600 | SKN 100/16 | SKN 130/16 | SKN 240/16 |
| 200 | SKR 100/02 | SKR 130/02* | SKR 240/02 |
| 400 | SKR 100/04 | SKR 130/04* | SKR 240/04 |
| 800 | SKR 100/08 | SKR 130/08* | SKR 240/08 |
| 1200 | SKR 100/12 | SKR 130/12* | SKR 240/12 |
| 1600 | SKR 100/16 | SKR 130/16* | SKR 240/16 |

Rectifier Diodes

SKN 100 SKR 100
SKN 130 SKR 130
SKN 240 SKR 240



| Symbol | Conditions | SKN 100 SKR 100 | SKN 130 SKR 130 | SKN 240 SKR 240 |
|-------------------|---|--|--|--|
| I _{FAV} | sin. 180; T _{case} = 100 °C = 125 °C | 125 A 100 A | 165 A 130 A | 320 A 240 A |
| I _{FSM} | T _{vj} = 25 °C 10 ms; T _{vj} = 180 °C | 1 750 A 1 500 A | 2 500 A 2 000 A | 6 000 A 5 000 A |
| i ² t | T _{vj} = 25 °C T _{vj} = 180 °C | 15 000 A ² s 11 500 A ² s | 31 000 A ² s 20 000 A ² s | 180 000 A ² s 125 000 A ² s |
| Q _{rr} | T _{vj} = 160 °C; - $\frac{di_F}{dt} = 10 \frac{A}{\mu s}$ | typ. 100 μC | typ. 120 μC | typ. 200 μC |
| I _R | T _{vj} = 25 °C; V _R = V _{RRM} T _{vj} = 180 °C; V _R = V _{RRM} | 1 mA 15 mA | 1 mA 22 mA | 2 mA 60 mA |
| V _F | T _{vj} = 25 °C; (I _F = ...); max. | 1,55 V (400 A) | 1,5 V (500 A) | 1,4 V (750 A) |
| V _(TO) | T _{vj} = 180 °C | 0,85 V | 0,85 V | 0,85 V |
| r _T | T _{vj} = 180 °C | 1,8 mΩ | 1,3 mΩ | 0,6 mΩ |
| R _{thjc} | | 0,45 °C/W | 0,35 °C/W | 0,20 °C/W |
| R _{thch} | | 0,08 °C/W | 0,08 °C/W | 0,03 °C/W |
| T _{vj} | | - 40 ... + 180 °C | | |
| T _{stg} | | - 55 ... + 180 °C | | |
| M | SI units/US units | 10 Nm/90 lb. in. | 10 Nm/90 lb. in. | 30Nm/270lb.in. |
| a | | 5 · 9,81 m/s ² | 5 · 9,81 m/s ² | 5 · 9,81 m/s ² |
| w | approx. | 100 g | 100 g | 250 g |
| RC | P _R = 2 W | 0,25 μF + 50 Ω | 0,25 μF + 50 Ω | 0,5 μF + 30 Ω |
| R _p | P _R = 20 W | 50 kΩ | 50 kΩ | 50 kΩ |
| Case | | E 13 | E 14 | E 15 |



Features

- Reverse voltages up to 1600 V
- Hermetic metal cases with glass insulators
- Threaded studs ISO M 12, M16 x 1,5 (SKR 130 also 1/2–20 UNF or 3/8–24 UNF)
- SKN: anode to stud;
- SKR: cathode to stud

Typical Applications

- All-purpose mean power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes

* available with UNF threads 3/8–24 UNF 2 A (e.g. SKR 130/02 UNF 3/8) or 1/2–20 UNF 2 A (e.g. SKR 130/02 UNF)

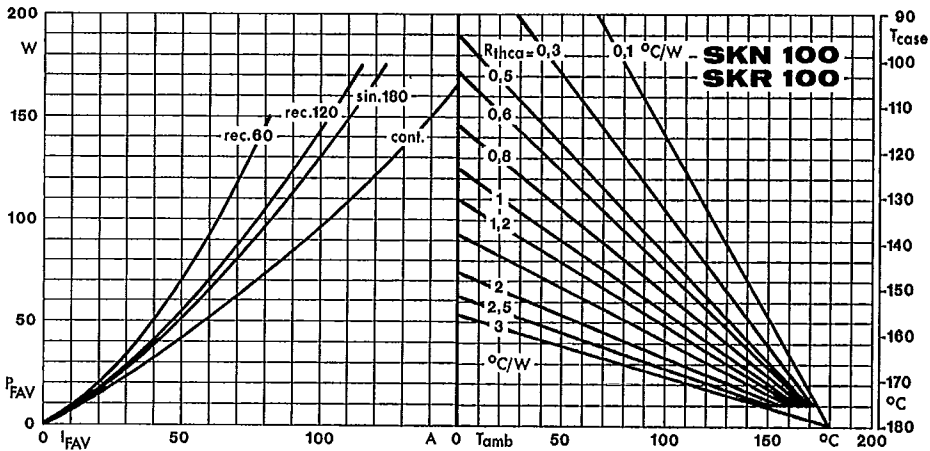


Fig. 1 a Power dissipation vs. forward current and case temperature

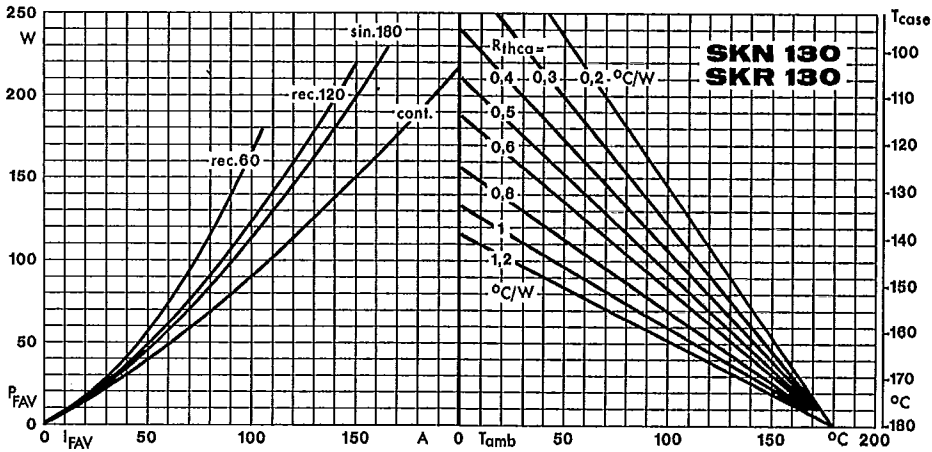


Fig. 1 b Power dissipation vs. forward current and case temperature

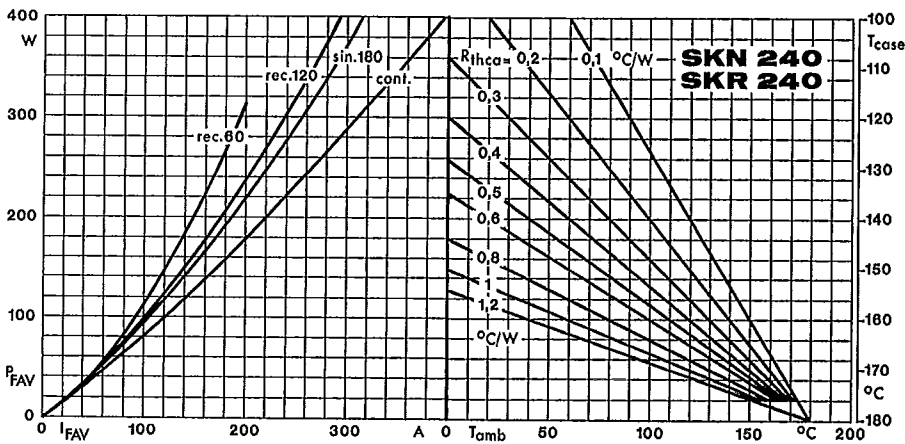


Fig. 1 c Power dissipation vs. forward current and case temperature

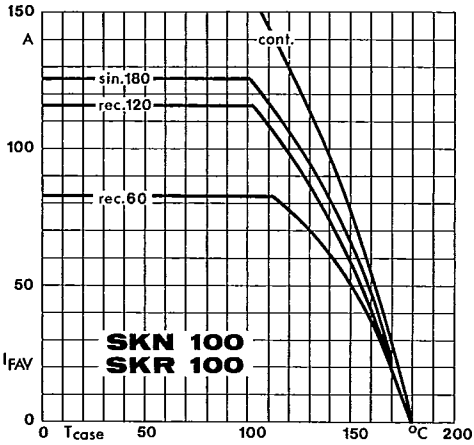


Fig. 3 a Rated forward current vs. case temperature

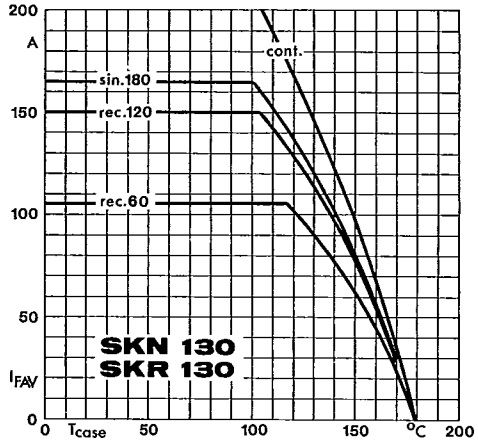


Fig. 3 b Rated forward current vs. case temperature

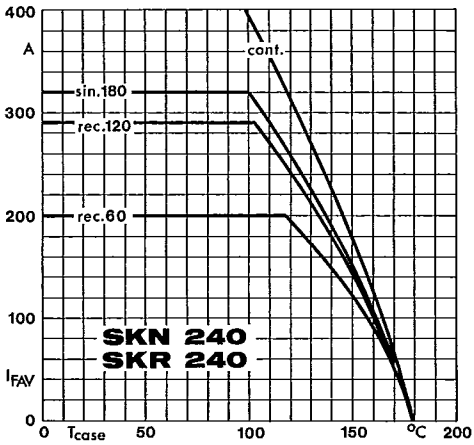


Fig. 3 c Rated forward current vs. case temperature

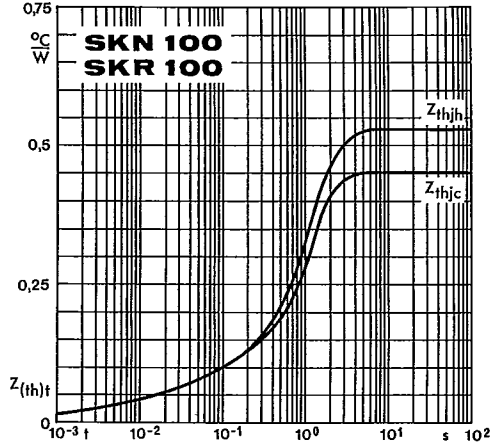


Fig. 5 a Transient thermal impedance vs. time

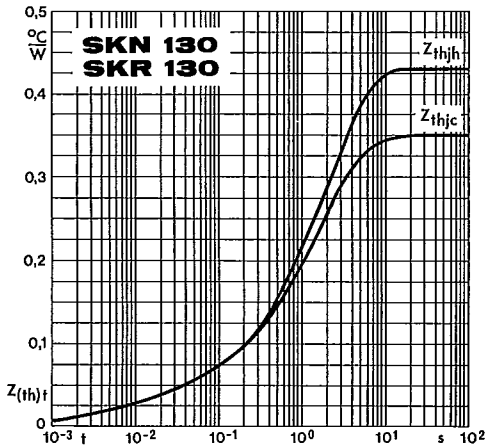


Fig. 5 b Transient thermal impedance vs. time

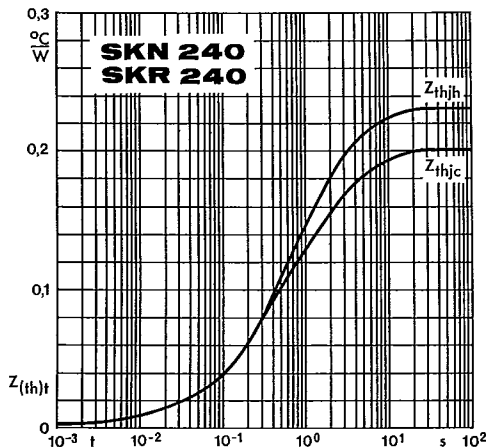


Fig. 5 c Transient thermal impedance vs. time

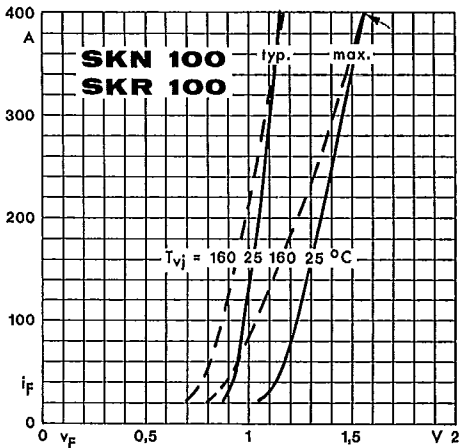


Fig. 6 a Forward characteristics

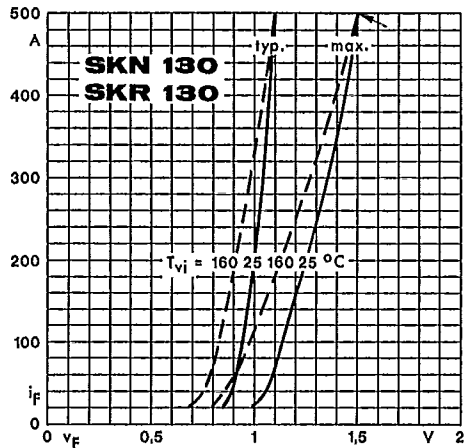


Fig. 6 b Forward characteristics

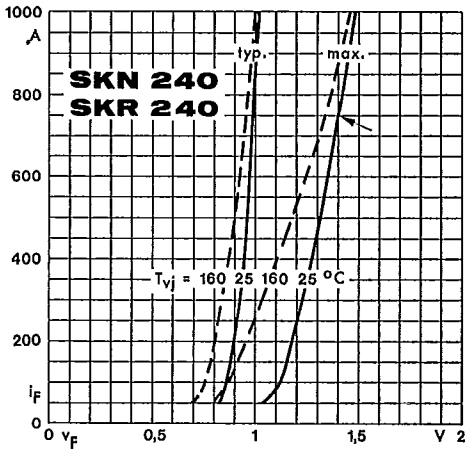


Fig. 6 c Forward characteristics

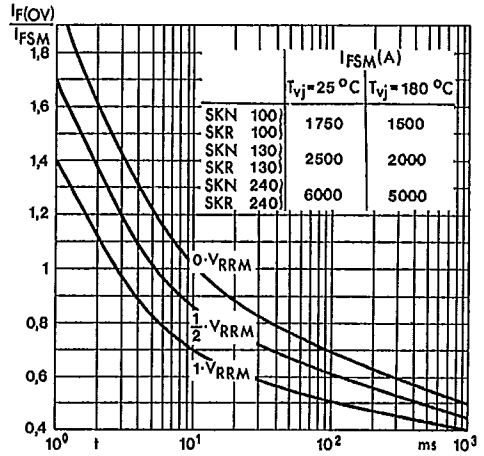


Fig. 7 Surge overload current vs. time