



Stud Diode

Rectifier Diode

SKN 100  
SKR 100

Features

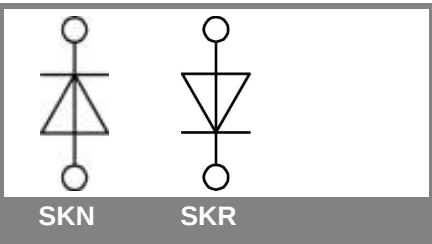
- Reverse voltages up to 1800 V
- Hermetic metal case with glass insulator
- Threaded stud ISO M12, M16 x 1,5
- SKN: anode to stud, SKR: cathode to stud

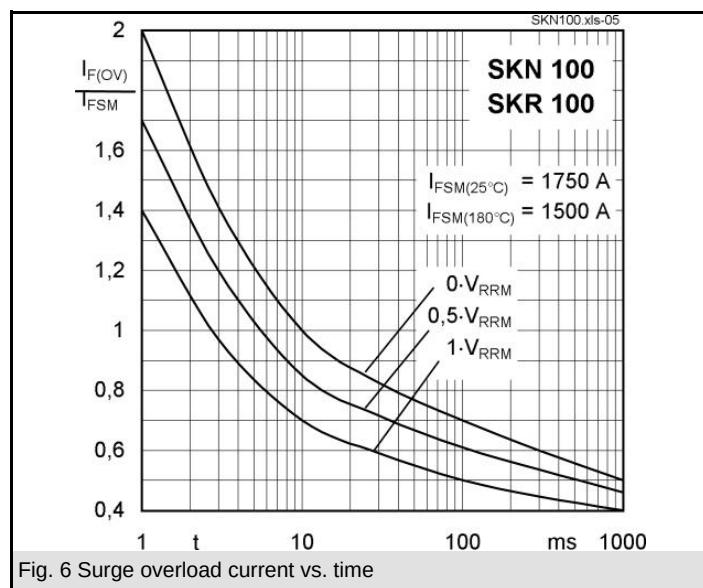
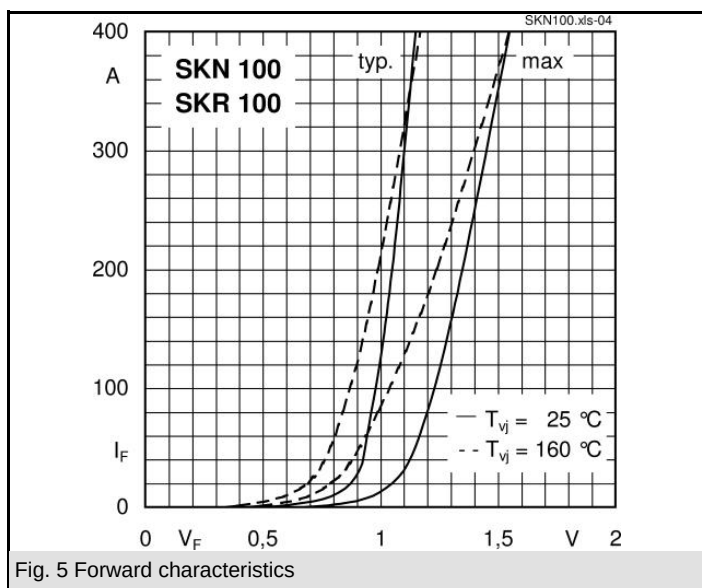
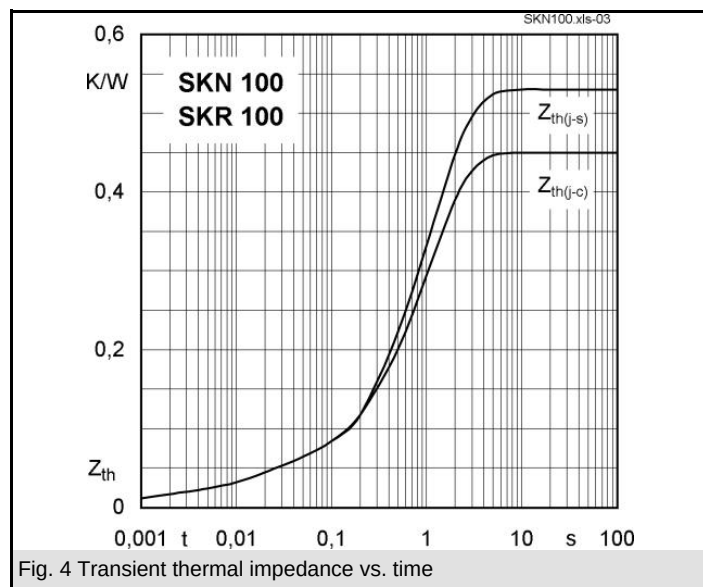
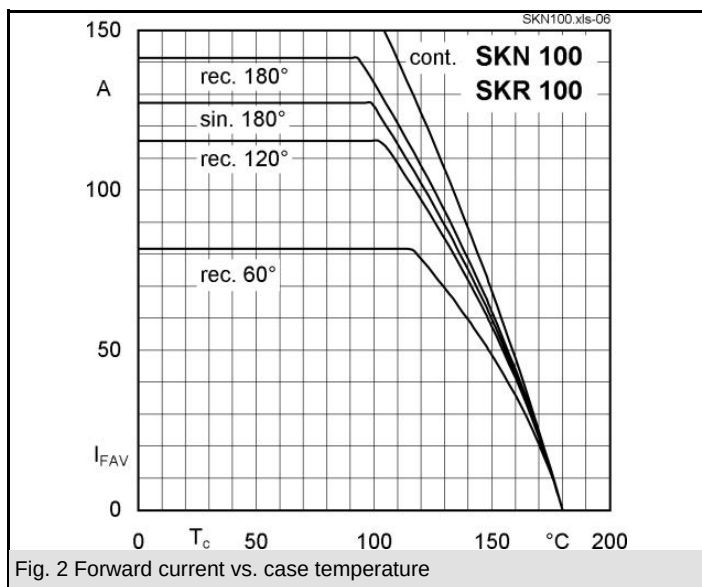
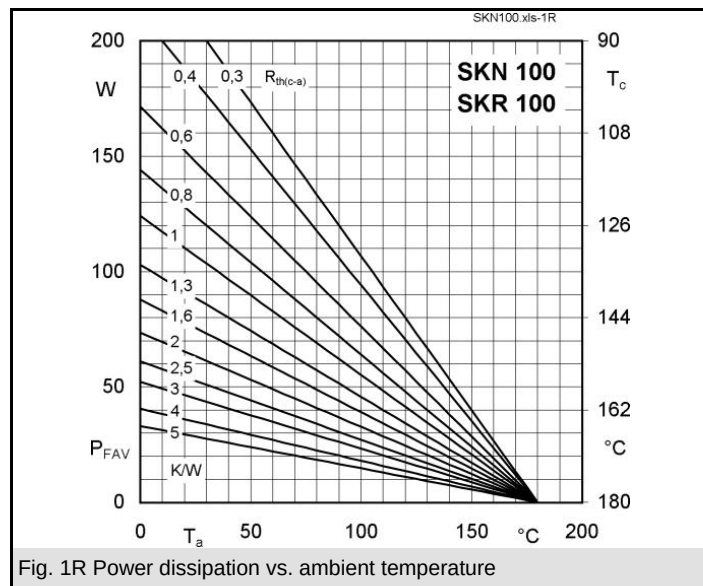
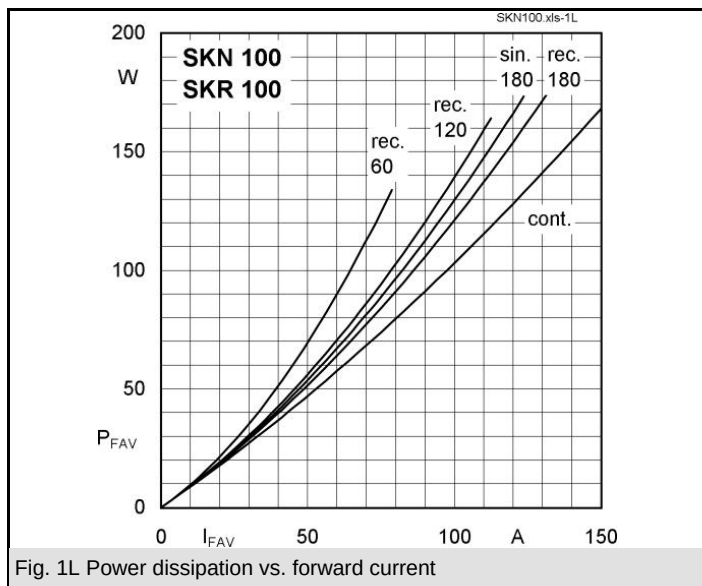
Typical Applications

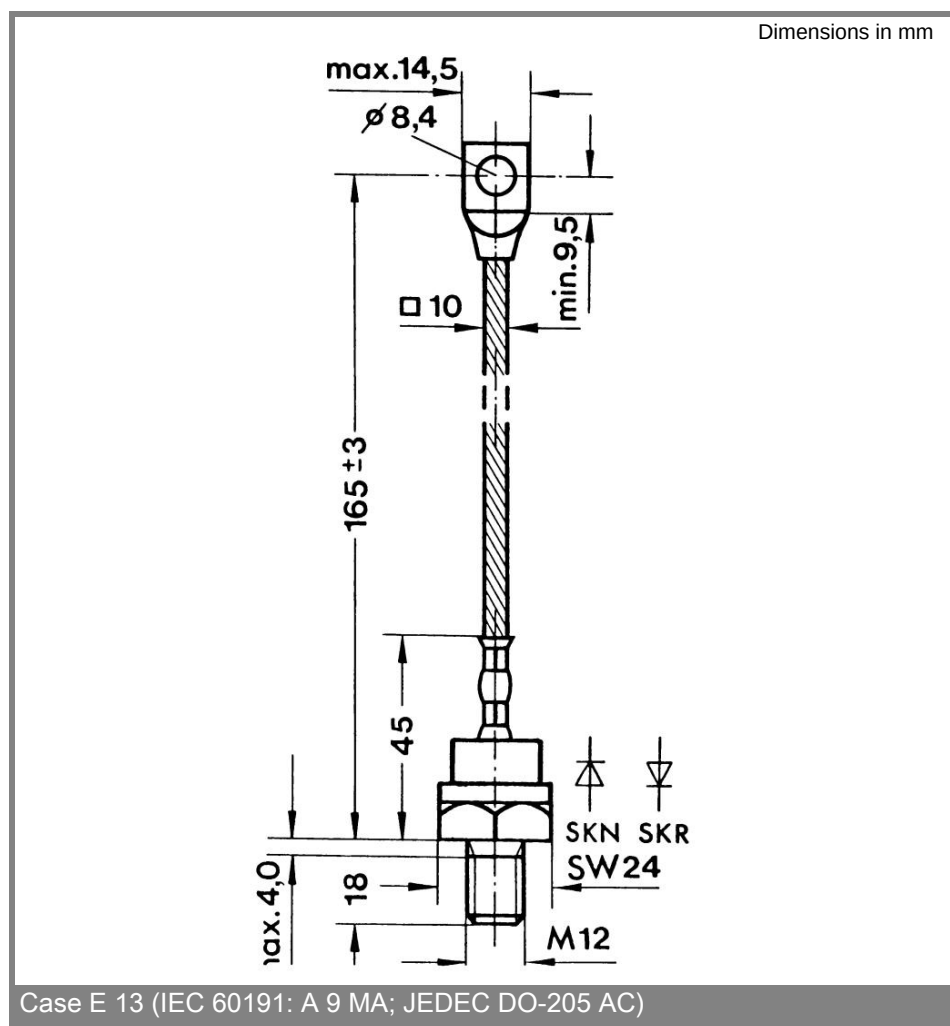
- All-purpose mean power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifier
- Free-wheeling diodes
- Recommended snubber network:  
RC: 0,25 µF, 50 Ω, (P<sub>R</sub> = 2 W),  
R<sub>P</sub> = 50 kΩ (P<sub>R</sub> = 20 W)

| $V_{RSM}$<br>V | $V_{RRM}$<br>V | $I_{FRMS} = 200\text{ A}$ (maximum value for continuous operation)<br>$I_{FAV} = 100\text{ A}$ (sin. 180; $T_c = 120\text{ °C}$ ) |            |  |
|----------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------|------------|--|
|                |                | SKN 100/04                                                                                                                        | SKR 100/04 |  |
| 400            | 400            | SKN 100/08                                                                                                                        | SKR 100/08 |  |
| 800            | 800            | SKN 100/12                                                                                                                        | SKR 100/12 |  |
| 1200           | 1200           | SKN 100/14                                                                                                                        | SKR 100/14 |  |
| 1400           | 1400           | SKN 100/16                                                                                                                        | SKR 100/16 |  |
| 1600           | 1600           | SKN 100/18                                                                                                                        | SKR 100/18 |  |
| 1800           | 1800           |                                                                                                                                   |            |  |

| Symbol        | Conditions                                                      | Values         | Units |
|---------------|-----------------------------------------------------------------|----------------|-------|
| $I_{FAV}$     | sin. 180; $T_c = 100\text{ °C}$                                 | 125            | A     |
| $I_D$         | K 1,1; $T_a = 45\text{ °C}$ ; B2 / B6                           | 140 / 204      | A     |
|               | K 1,1F; $T_a = 35\text{ °C}$ ; B2 / B6                          | 240 / 336      | A     |
| $I_{FSM}$     | $T_{vj} = 25\text{ °C}$ ; 10 ms                                 | 1750           | A     |
|               | $T_{vj} = 180\text{ °C}$ ; 10 ms                                | 1500           | A     |
| $i^2t$        | $T_{vj} = 25\text{ °C}$ ; 8,3 ... 10 ms                         | 15000          | A²s   |
|               | $T_{vj} = 180\text{ °C}$ ; 8,3 ... 10 ms                        | 11500          | A²s   |
| $V_F$         | $T_{vj} = 25\text{ °C}$ ; $I_F = 400\text{ A}$                  | max. 1,55      | V     |
| $V_{(TO)}$    | $T_{vj} = 180\text{ °C}$                                        | max. 0,85      | V     |
| $r_T$         | $T_{vj} = 180\text{ °C}$                                        | max. 1,8       | mΩ    |
| $I_{RD}$      | $T_{vj} = 180\text{ °C}$ ; $V_{RD} = V_{RRM}$                   | max. 15        | mA    |
| $Q_{rr}$      | $T_{vj} = 160\text{ °C}$ ; $-di_F/dt = 10\text{ A/}\mu\text{s}$ | 100            | µC    |
| $R_{th(j-c)}$ |                                                                 | 0,45           | 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 13           |       |







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