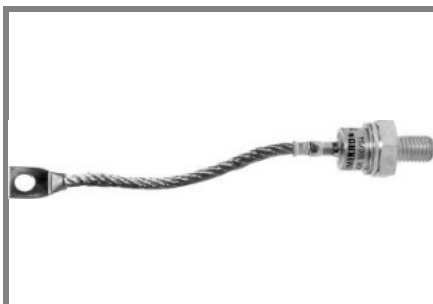




**Stud Diode**

## Rectifier Diode

**SKN 100**

**SKR 100**

### Features

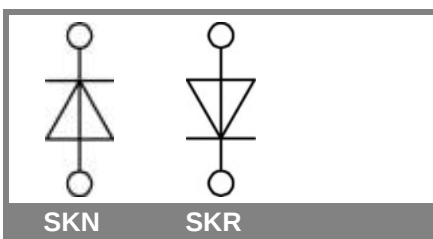
- Reverse voltages up to 1800 V
- Hermetic metal case with glass insulator
- Threaded stud ISO M12, M16 x 1,5
- SKN: anode to stud, SKR: cathode to stud

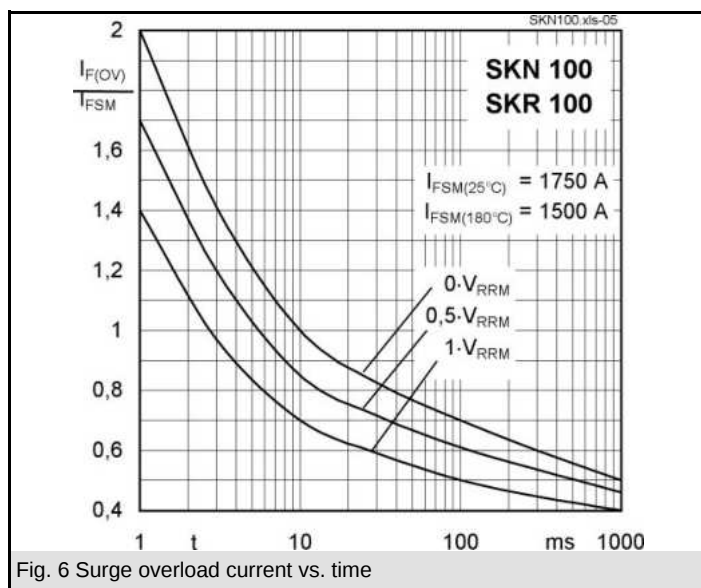
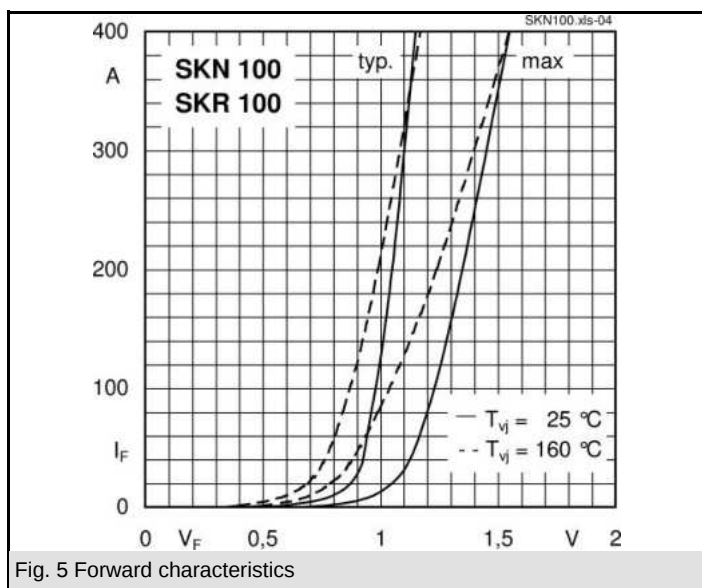
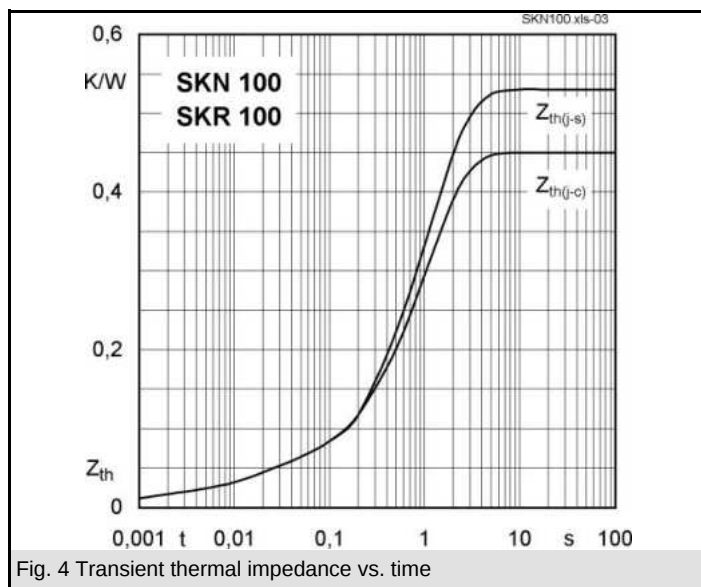
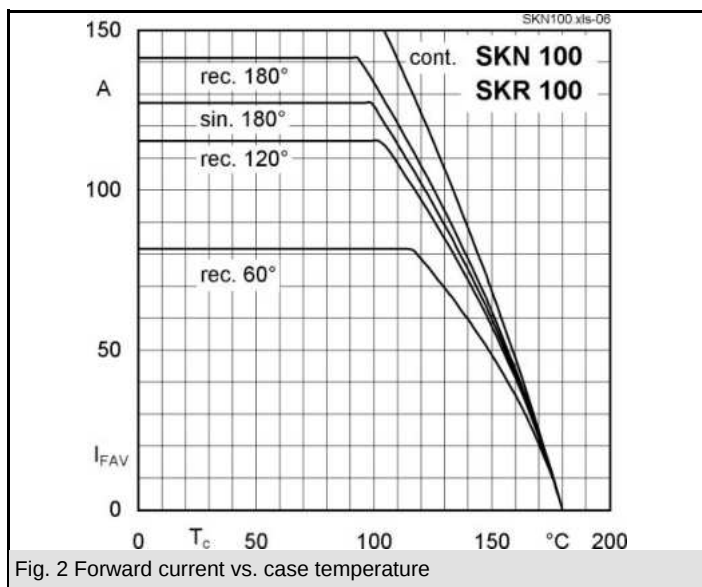
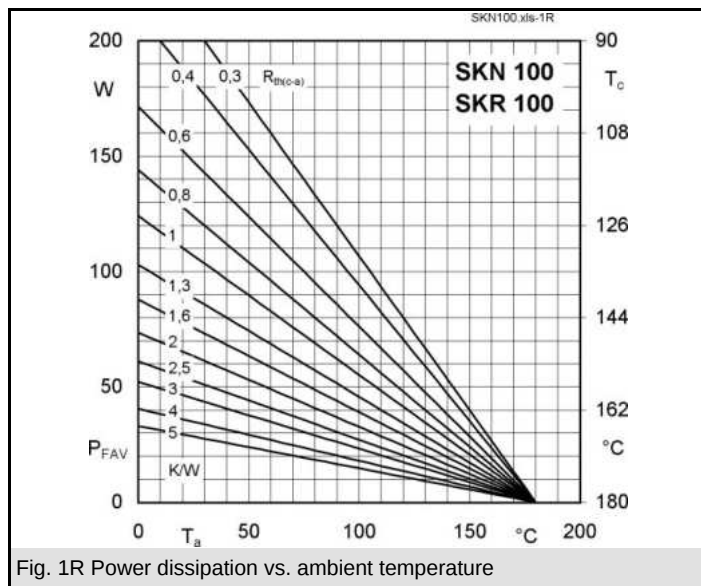
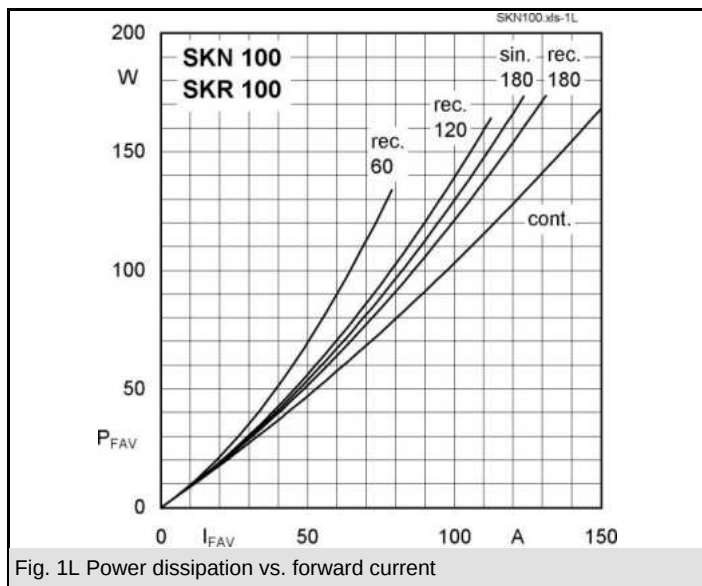
### Typical Applications

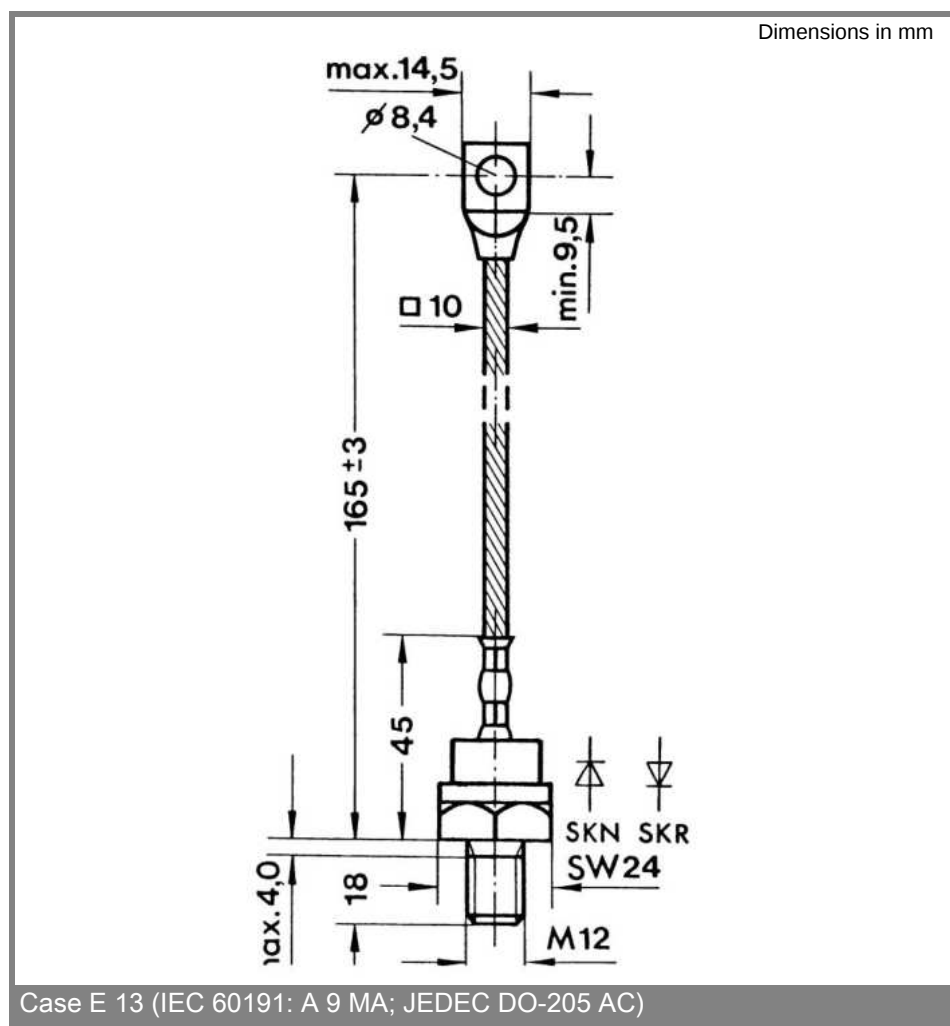
- All-purpose mean power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifier
- Free-wheeling diodes
- Recommended snubber network:  
RC: 0,25  $\mu$ F, 50  $\Omega$ , ( $P_R = 2$  W),  
 $R_P = 50$  k $\Omega$  ( $P_R = 20$  W)

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

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







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