



## Stud Diode

## Rectifier Diode

**SKN 130**

**SKR 130**

### Features

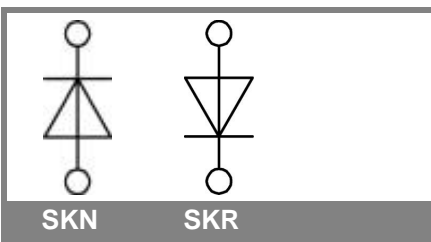
- Reverse voltages up to 1800 V
- Hermetic metal case with glass insulator
- Threaded stud ISO M12 (also 1/2 - 20 UNF, 3/8 - 24 UNF and M12 x 1,5)
- SKN: anode to stud, SKR: cathode to stud

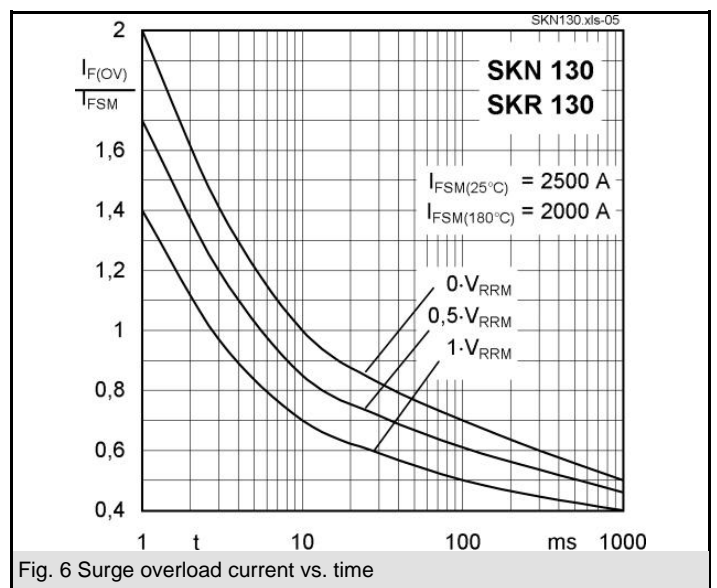
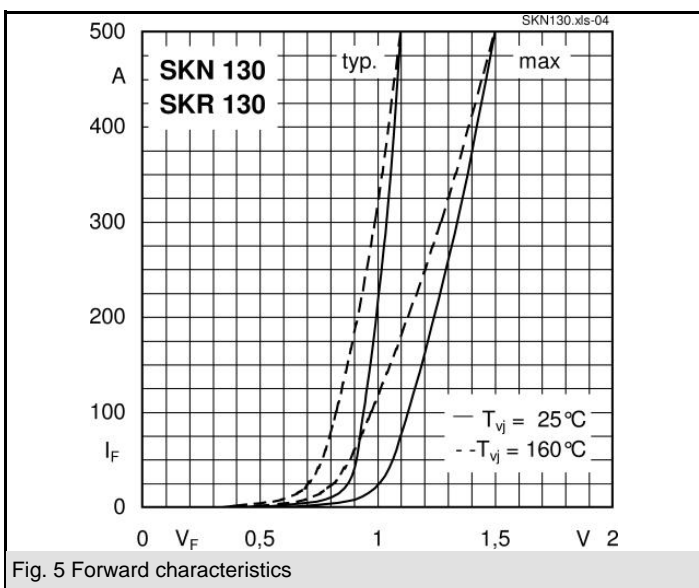
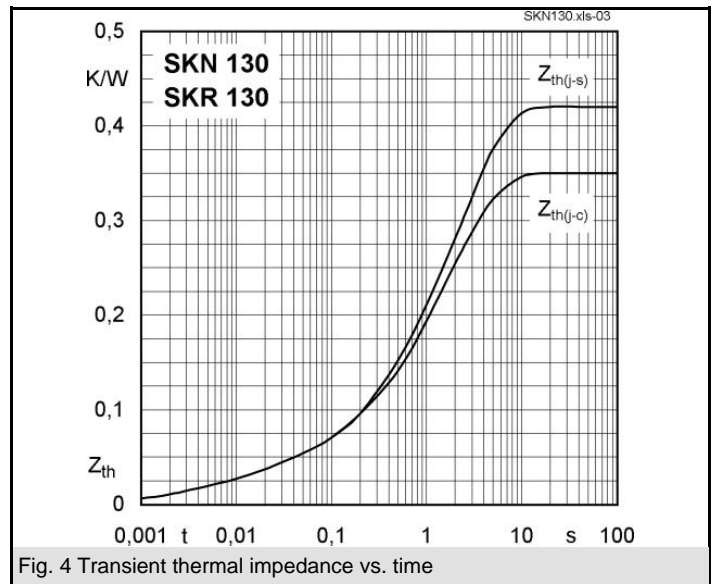
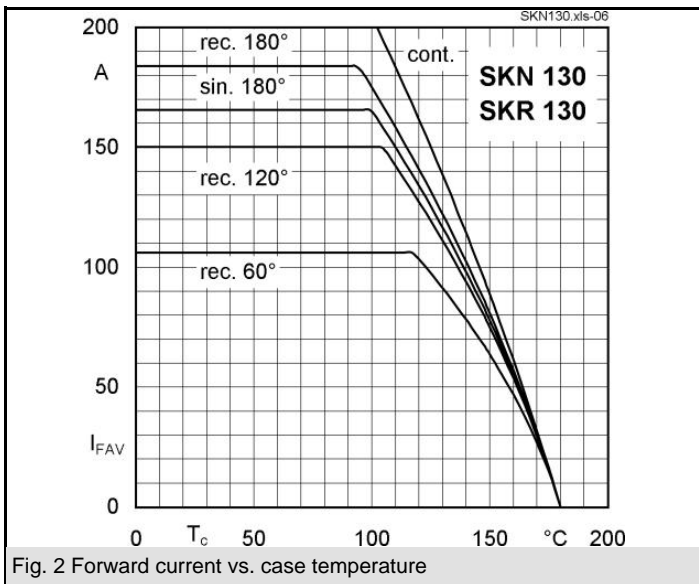
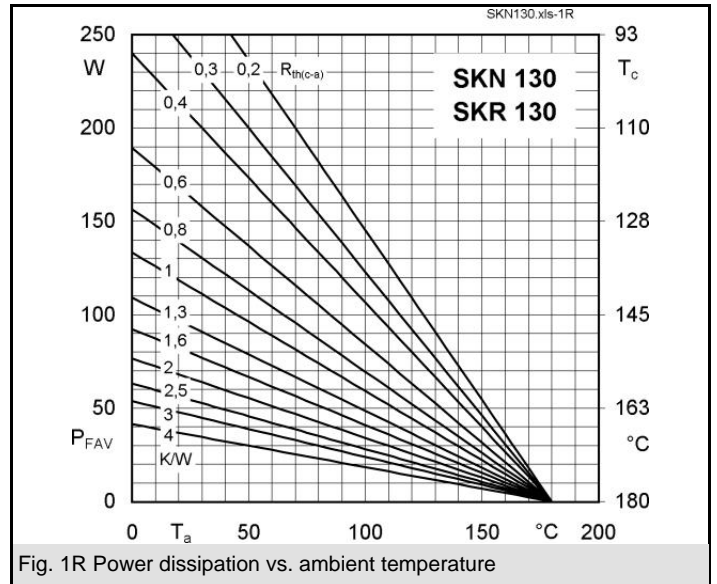
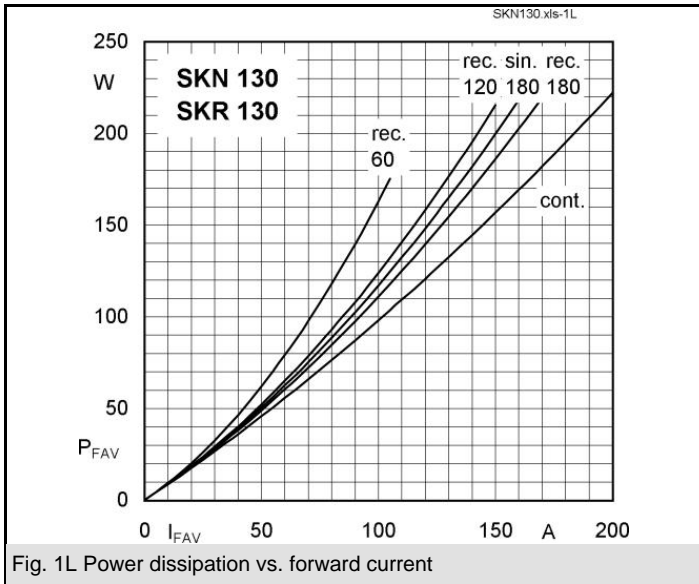
### Typical Applications

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

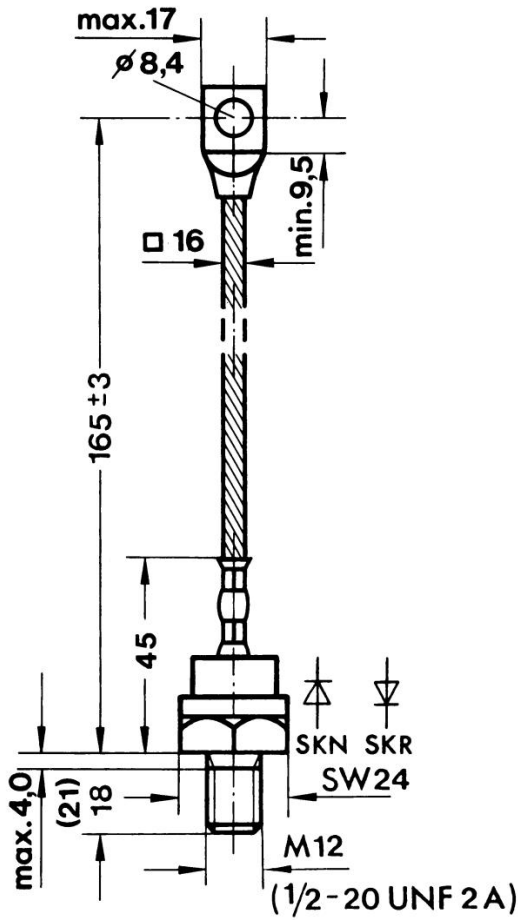
| $V_{RSM}$<br>V | $V_{RRM}$<br>V | $I_{FRMS} = 260$ A (maximum value for continuous operation)<br>$I_{FAV} = 130$ A (sin. 180; $T_c = 125$ °C) |            |
|----------------|----------------|---|------------|
| 400            | 400            | SKN 130/04  | SKR 130/04 |
| 800            | 800            | 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 <sup>2</sup> s |
|               | $T_{vj} = 180$ °C; 8,3 ... 10 ms              | 20000          | A <sup>2</sup> s |
| $V_F$         | $T_{vj} = 25$ °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       | m $\Omega$       |
| $I_{RD}$      | $T_{vj} = 180$ °C; $V_{RD} = V_{RRM}$         | max. 22        | mA               |
| $Q_{rr}$      | $T_{vj} = 160$ °C; $-di_F/dt = 10$ A/ $\mu$ s | 120            | $\mu$ 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 <sup>2</sup> |
| $m$           | approx.                                       | 100            | g                |
| Case          |   | E 14           |                  |





Dimensions in mm



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

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