

Stud Diode

Rectifier Diode

SKN 45

SKR 45

Features

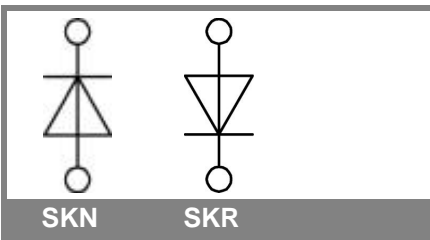
- Reverse voltages up to 1600 V
- Hermetic metal case with glass insulator
- Threaded stud ISO M8
- SKN: anode to stud, SKR: cathode to stud

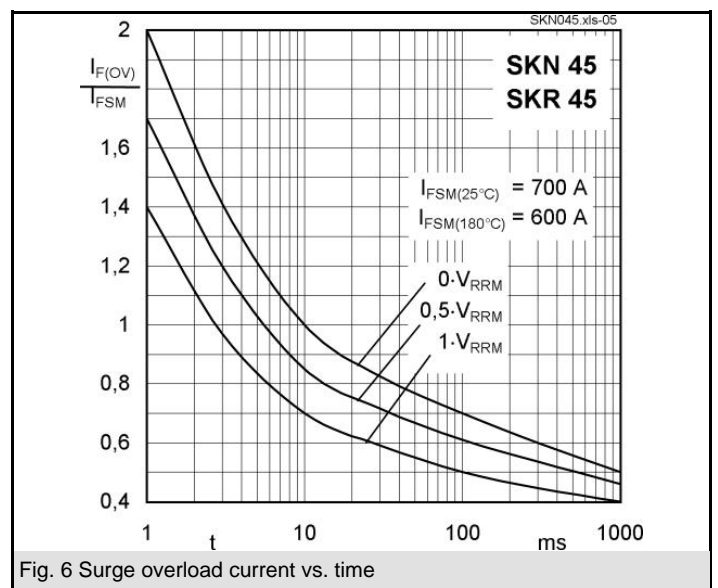
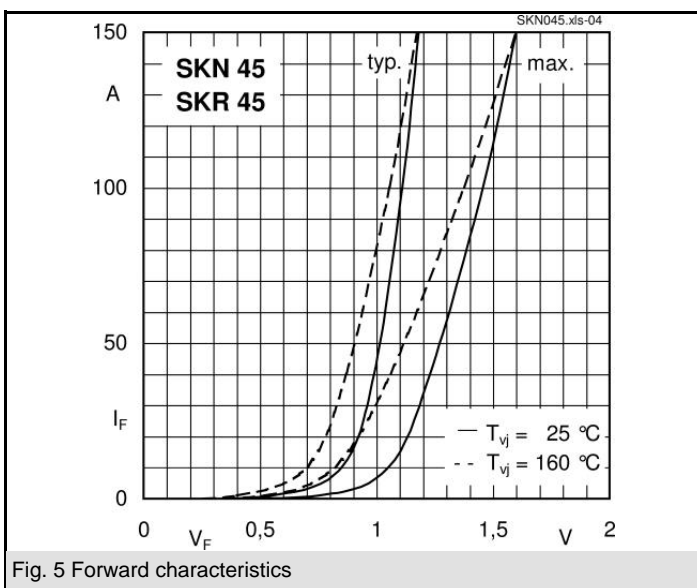
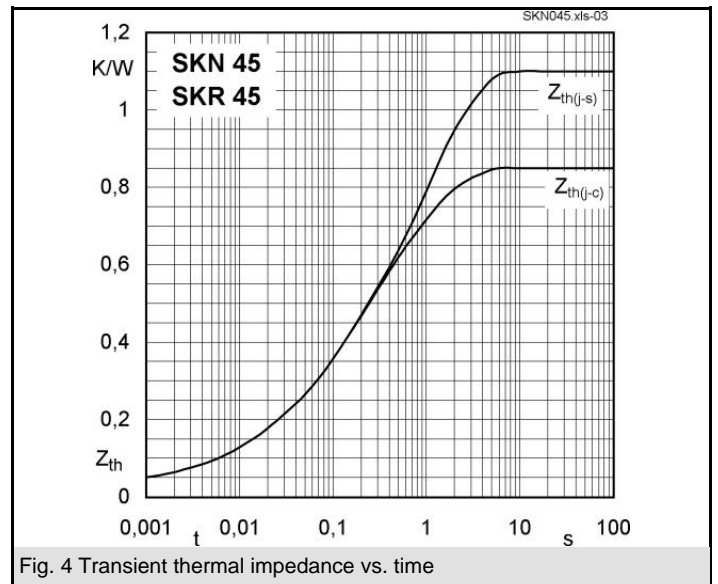
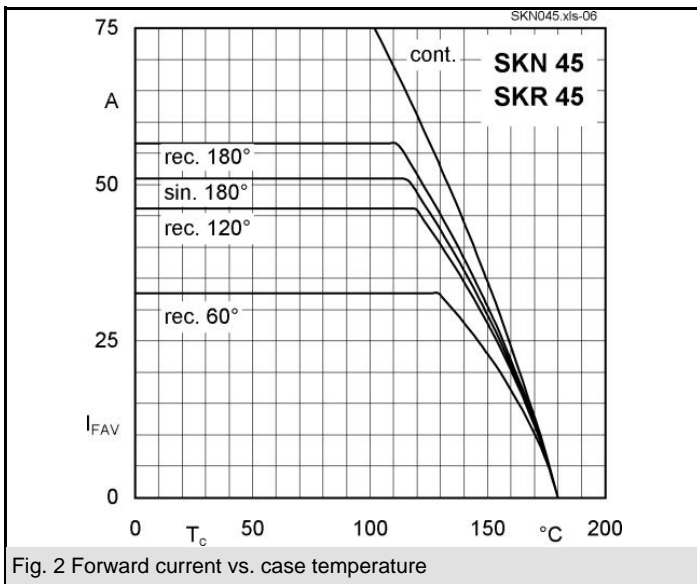
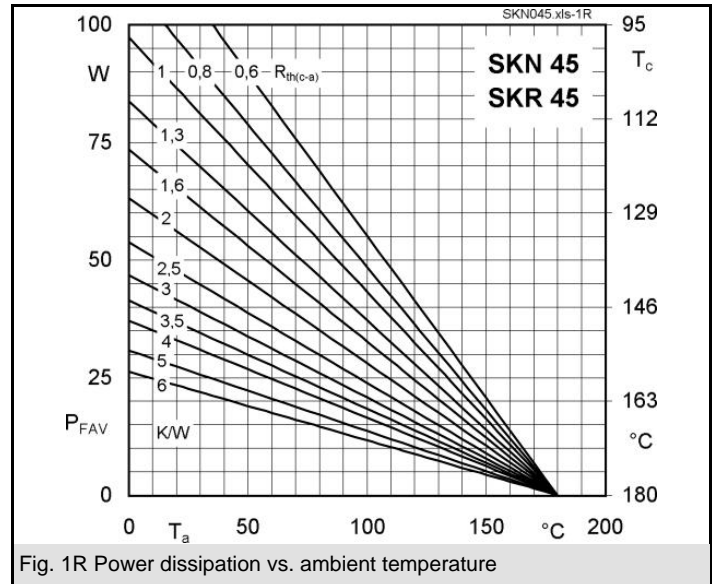
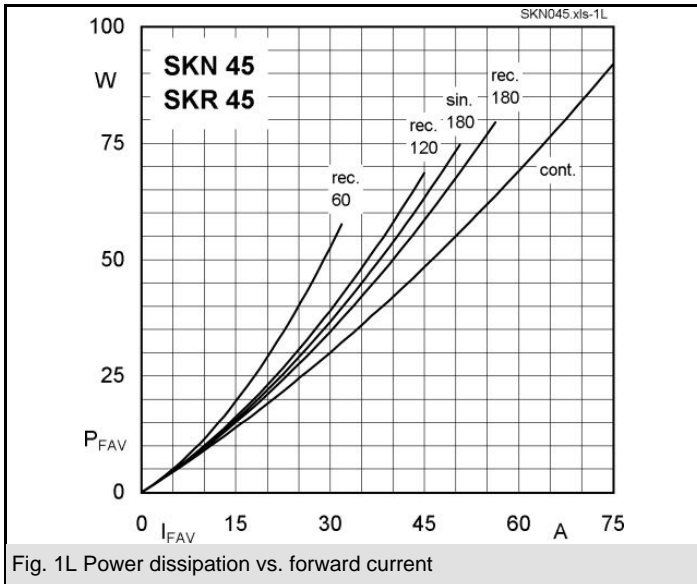
Typical Applications

- All-purpose mean power rectifier diodes
- Cooling via heatsinks
- Non-controllable and half-controllable rectifiers
- Free-wheeling diodes
- Recommended snubber network:
 $RC: 0,1 \mu F, 100 \Omega (P_R = 1 W)$
 $R_P = 80 k\Omega (P_R = 6 W)$

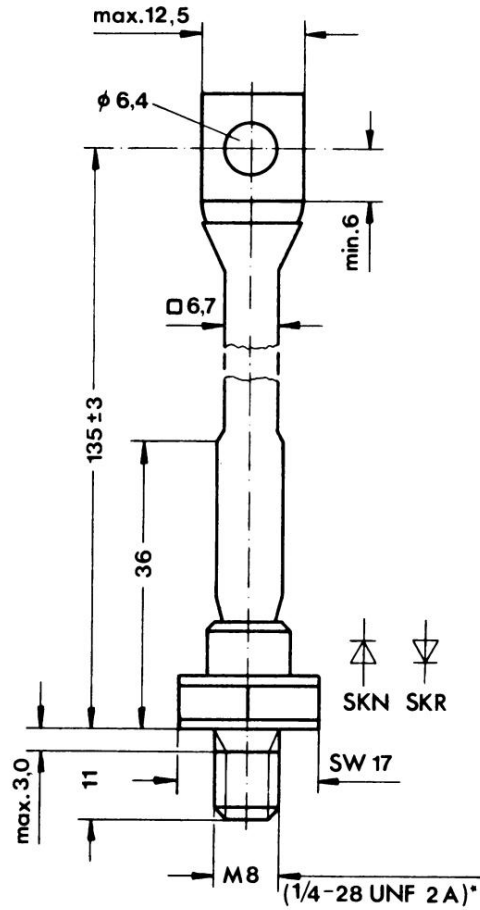
| V_{RSM} V | V_{RRM} V | $I_{FRMS} = 80 A$ (maximum value for continuous operation) | |
|----------------|----------------|--|-----------|
| | | $I_{FAV} = 45 A$ (sin. 180; $T_c = 125^\circ C$) | |
| 400 | 400 | SKN 45/04 | SKR 45/04 |
| 800 | 800 | SKN 45/08 | SKR 45/08 |
| 1200 | 1200 | SKN 45/12 | SKR 45/12 |
| 1400 | 1400 | SKN 45/14 | SKN 45/14 |
| 1600 | 1600 | SKN 45/16 | SKR 45/16 |

| Symbol | Conditions | Values | Units |
|---------------|---|----------------|------------------|
| I_{FAV} | sin. 180; $T_c = 100^\circ C$ | 50 | A |
| I_D | K 5; $T_a = 45^\circ C$; B2 / B6 | 40 / 57 | A |
| | K 1,1; $T_a = 45^\circ C$; B2 / B6 | 86 / 120 | A |
| I_{FSM} | $T_{vj} = 25^\circ C$; 10 ms | 700 | A |
| | $T_{vj} = 180^\circ C$; 10 ms | 600 | A |
| i^2t | $T_{vj} = 25^\circ C$; 8,3 ... 10 ms | 2500 | A ² s |
| | $T_{vj} = 180^\circ C$; 8,3 ... 10 ms | 1800 | A ² s |
| V_F | $T_{vj} = 25^\circ C$; $I_F = 150 A$ | max. 1,6 | V |
| $V_{(TO)}$ | $T_{vj} = 180^\circ C$ | max. 0,85 | V |
| r_T | $T_{vj} = 180^\circ C$ | max. 5 | m Ω |
| I_{RD} | $T_{vj} = 180^\circ C$; $V_{RD} = V_{RRM}$ | max. 10 | mA |
| Q_{rr} | $T_{vj} = 160^\circ C$; $- di_F/dt = 10 A/\mu s$ | 70 | μC |
| $R_{th(j-c)}$ | | 0,85 | K/W |
| $R_{th(c-s)}$ | | 0,25 | K/W |
| T_{vj} | | - 40 ... + 180 | $^\circ C$ |
| T_{stg} | | - 55 ... + 180 | $^\circ C$ |
| V_{isol} | | - | V~ |
| M_s | to heatsink | 4 | Nm |
| a | | 5 * 9,81 | m/s ² |
| m | approx. | 30 | g |
| Case | | E 12 | |





Dimensions in mm



Case E 12 (IEC 60191: A 16 U, A 17 MB 2; JEDEC: SO-32B)

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