

SKN 7500



Caseless Disc Diode

Rectifier Diodes

SKN 7500

Features

- High current diode in a slim package without external case
- Metal pressure contacts for double or single side cooling
- Reverse voltage of 600 V
- Low power dissipation and low thermal resistance
- Available in matched groups for paralleling

Typical Applications

- Welding
- High current rectifiers
- Electroplating

1) DSC = Double Side Cooling
SSC = Single Side Cooling

| | | |
|----------------|----------------|--|
| V_{RSM} V | V_{RRM} V | $I_{FRMS} = 11800$ A (maximum value for cont. operation) $I_{FAV} = 7500$ A (sin. 180; $T_c = 85^\circ\text{C}$) |
| 600 | 600 | SKN 7500/06 |

| Symbol | Condition | Values | Units |
|---------------|---|--------------------------|--|
| I_{FAV} | sin. 180 ; $T_c = 85^\circ\text{C}$ sin. 180 ; $T_c = 100^\circ\text{C}$ | 7500 6700 | A A |
| I_{FSM} | $T_{vj} = 25^\circ\text{C}$; 10 ms $T_{vj} = 180^\circ\text{C}$; 10 ms | 60 50 | kA kA |
| i^2t | $T_{vj} = 25^\circ\text{C}$; 8,3...10 ms $T_{vj} = 180^\circ\text{C}$; 8,3...10 ms | 18000 12500 | kA^2s kA^2s |
| V_F | $T_{vj} = 25^\circ\text{C}$, $I_F = 14$ kA | max. 1,30 | V |
| $V_{F(TO)}$ | $T_{vj} = 180^\circ\text{C}$ | max. 0,70 | V |
| r_T | $T_{vj} = 180^\circ\text{C}$ | max. 0,038 | $\text{m}\Omega$ |
| I_{RD} | $T_{vj} = 25^\circ\text{C}$; $V_R = V_{RRM}$ $T_{vj} = 180^\circ\text{C}$; $V_R = V_{RRM}$ | max. 4 max. 100 | mA mA |
| $R_{th(j-c)}$ | DSC ¹⁾ SSC anode / SSC cathode ¹⁾ | 9,0 12,4 / 33 | K/kW K/kW |
| $R_{th(c-s)}$ | DSC / SSC ¹⁾ | 5 / 10 | K/kW |
| T_{vj} | | -40...+180 | $^\circ\text{C}$ |
| T_{stg} | | -40...+180 | $^\circ\text{C}$ |
| F | Mounting force (SI units) Mounting force (US units) | 24 ... 30 5400...6750 | kN lbs. |
| a | | 5 * 9,81 | m/s^2 |
| m | approx. | 78 | g |
| Case | Disc $\varnothing 49,5 \times 5,3$ mm | E28 | |



SKN

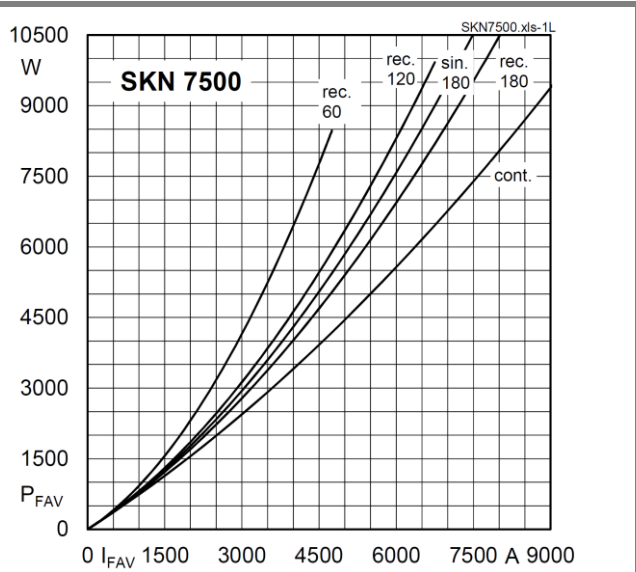


Fig. 1L Power dissipation vs. forward current

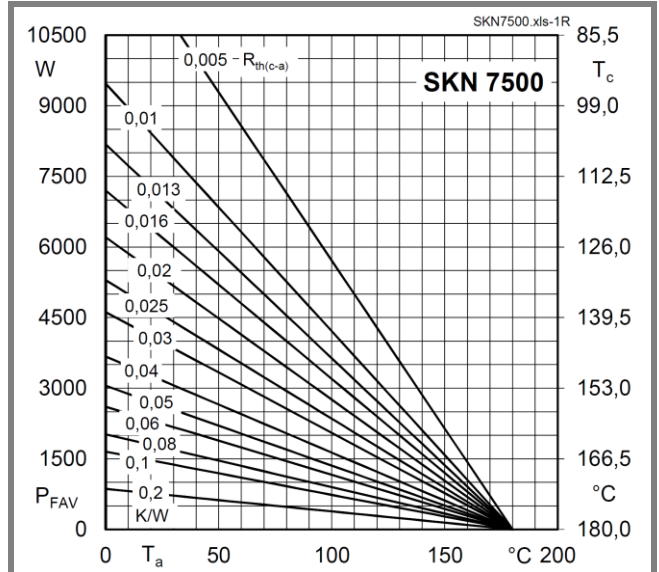


Fig. 1R Power dissipation vs. ambient temperature

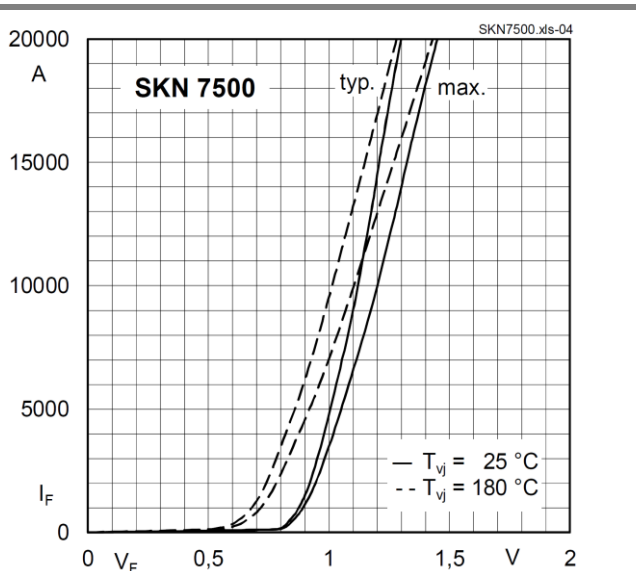


Fig. 4 Forward characteristics

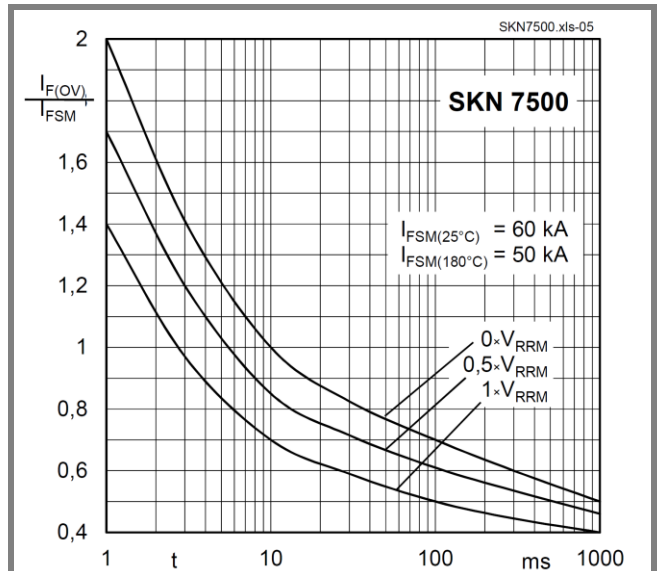


Fig. 5 Surge overload current vs. time

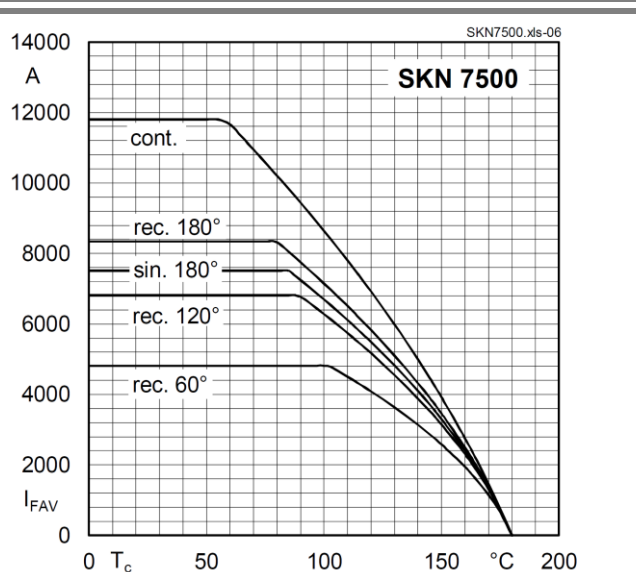
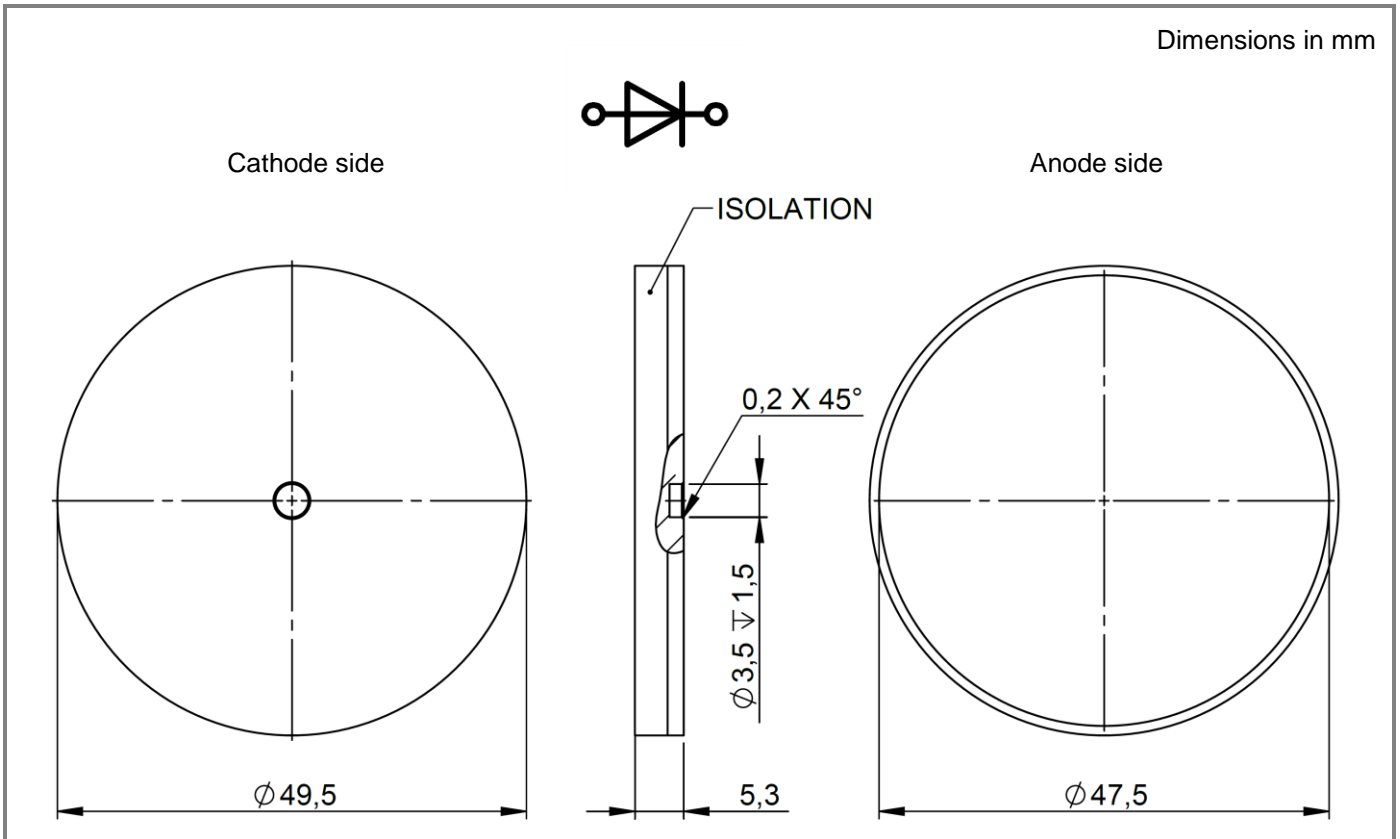


Fig. 6 Forward current vs. case temperature



Case E28

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