SEMIKRON

| $V_{RSM}$ $V_{RRM}$ V | $I_D$ ($T_h$ = 80°C) 70 A | 95 A |
|---|---|---|
| 800 | **SK 70 D 08** | **SK 95 D 08** |
| 1200 | **SK 70 D 12** | **SK 95 D 12** |
| 1600 | **SK 70 D 16** | **SK 95 D 16** |

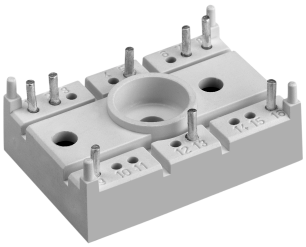
| Symbol | Conditions | SK 70 D | SK 95 D | Units |
|---|---|---|---|---|
| $I_D$ | $T_h$ = 80 °C | 35[2)] | 35[2)] | A |
| $I_{FSM}$ | $T_{vj}$ = 25 °C; 10 ms | 370 | 700 | A |
| | $T_{vj}$ = 150 °C; 10 ms | 270 | 560 | A |
| $i^2t$ | $T_{vj}$ = 25 °C; 8,3...10 ms | 685 | 2450 | $A^2s$ |
| | $T_{vj}$ = 150 °C; 8,3...10 ms | 365 | 1370 | $A^2s$ |
| $V_F$ | $T_{vj}$ = 25 °C; ($I_T$ = ... A); max. | 1,25(25) | 1,2(35) | V |
| $V_{(T0)}$ | $T_{vj}$ = 150 °C | 0,8 | 0,8 | V |
| $r_T$ | $T_{vj}$ = 150 °C | 13 | 11 | mΩ |
| $I_{RD}$ | $T_{vj}$ = 25 °C; $V_{RD}$ = $V_{RRM}$ | 0,2 | 0,2 | mA |
| | $T_{vj}$ = 150 °C; $V_{RD}$ = $V_{RRM}$ | 4 | 4 | mA |
| $R_{thjh}$ [1)] | per diode | 1,7 | 1,2 | K/W |
| | per module | 0,28 | 0,2 | K/W |
| $T_{vj}$ | | – 40 ... + 150 | | °C |
| $T_{stg}$ | | – 40 ... + 125 | | °C |
| $T_{solder}$ | terminals, 10 s | 260 | | °C |
| $V_{isol}$ | a.c. 50 Hz; r.m.s. 1 s/1 min | 3000 / 2500 | | V |
| $M_1$ | mounting torque | 2,0 | | Nm |
| w | | 19 | | g |
| Case | | T 7 | | |

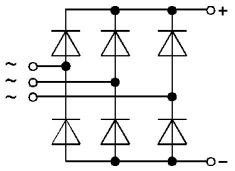
## SEMITOP® 2

## Bridge Rectifier

## SK 70 D
## SK 95 D

Preliminary Data






### Features

- Compact Design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- Up to 1600V reverse voltage
- High surge currents
- Glass passivated diode chips
- UL recognized, file no. E 63 532

### Typical Applications

- Input rectifier for power supplies
- Rectifier

[1)] Thermal resistance junction to heatsink
[2)] Current limited by number of pins

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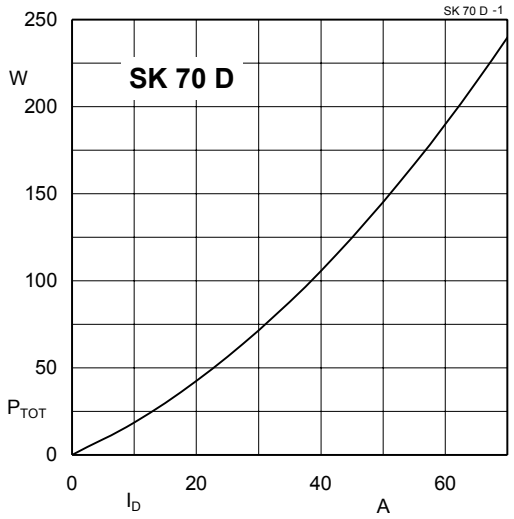
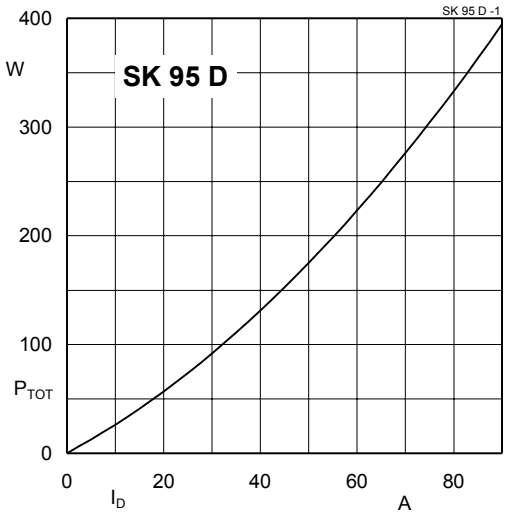



Fig. 1 Power dissipation vs. output current

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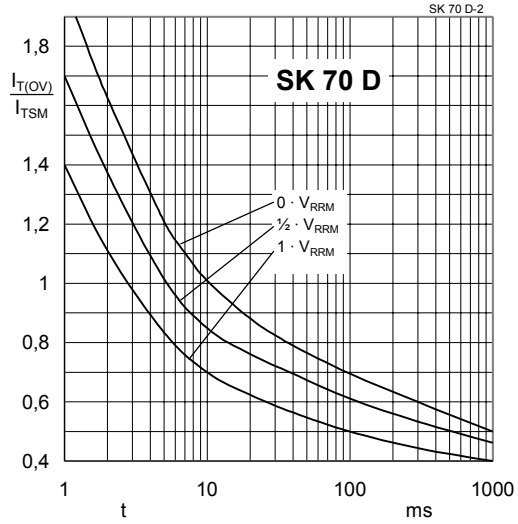
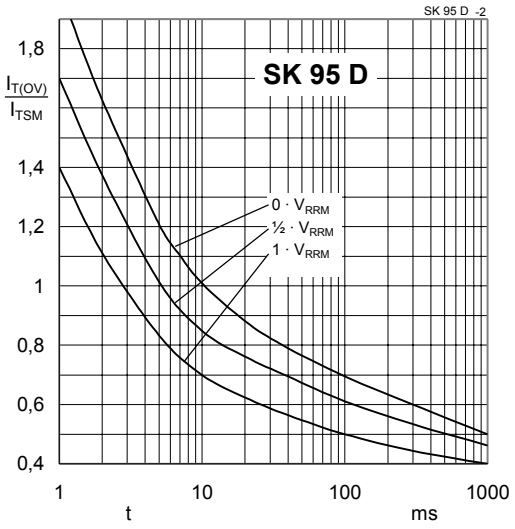



Fig. 2 Surge overload current vs. time

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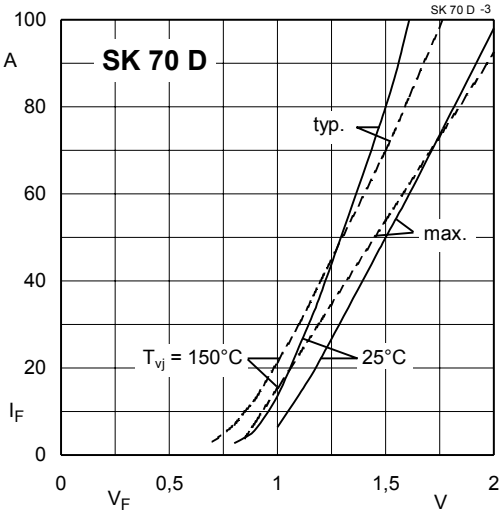


Fig. 3 Forward characteristic of single diode

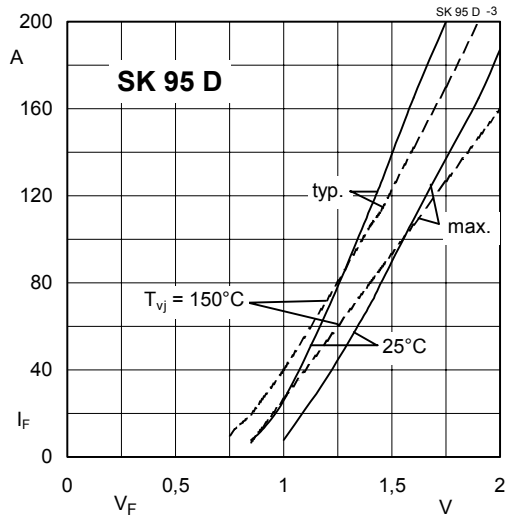


Fig. 3 Forward characteristic of single diode

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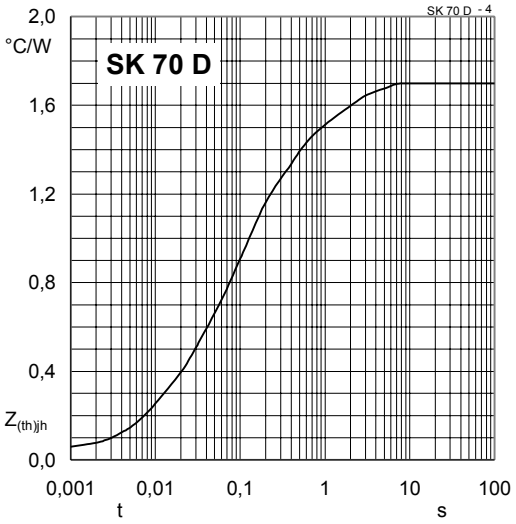


Fig. 4 Thermal transient impedance vs. time

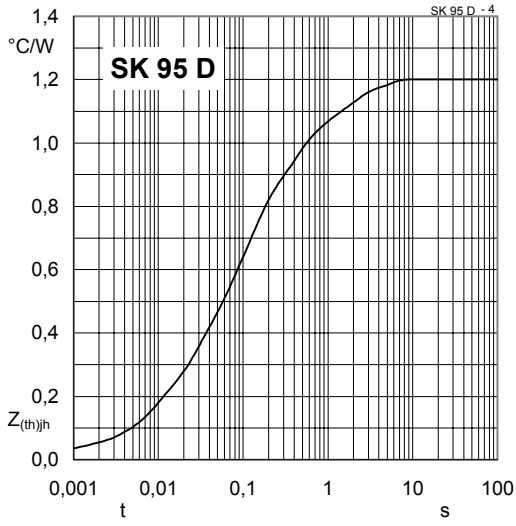


Fig. 4 Thermal transient impedance vs. time

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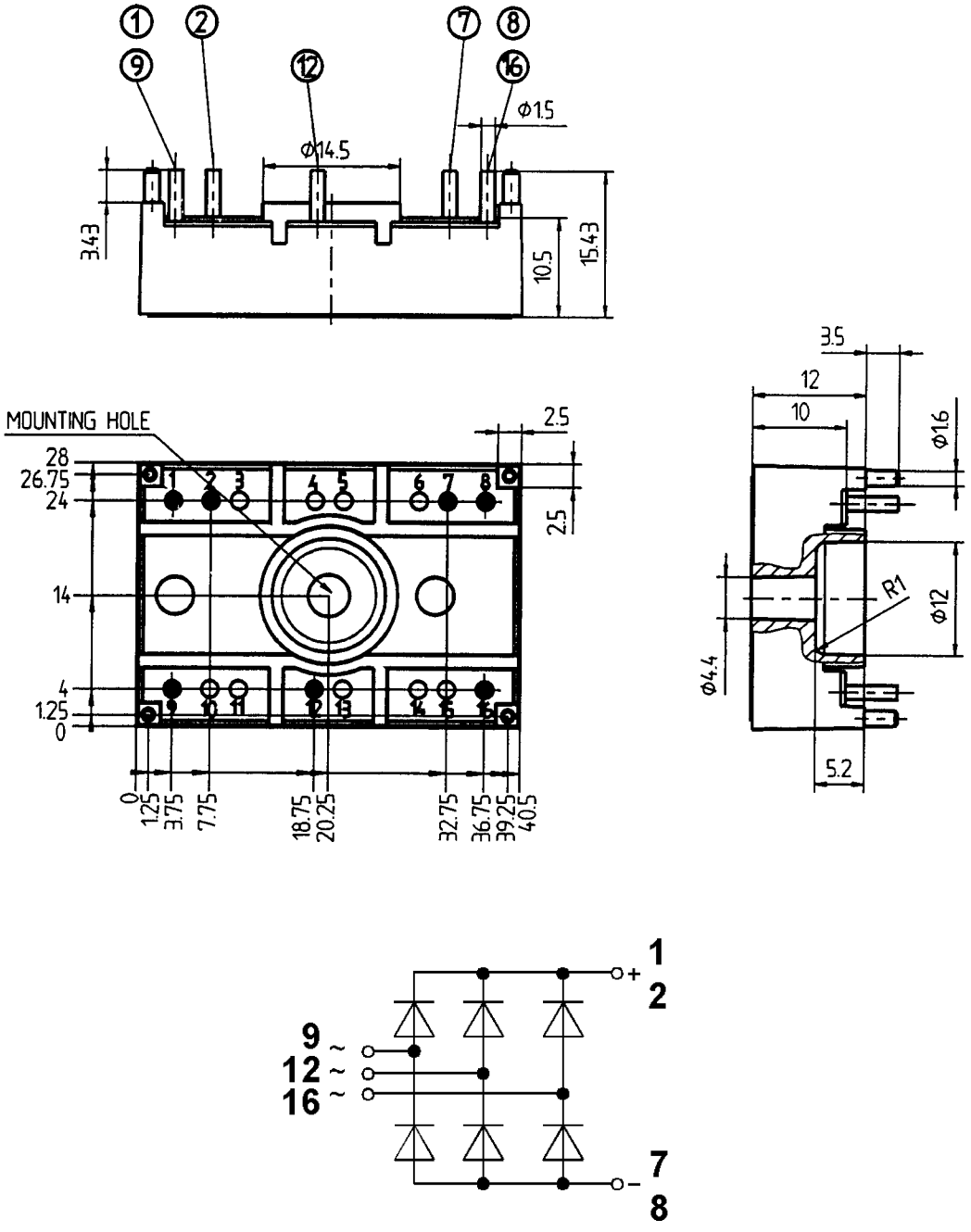
**SEMITOP® 2**
**SK 70 D**
**SK 95 D**

Case T 7




Dimensions in mm

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.