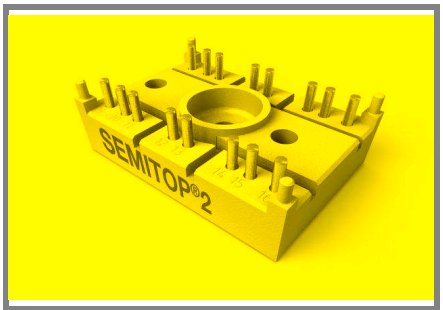
# SK 55 D




**SEMITOP® 2**

## Bridge Rectifier

**SK 55 D**

Preliminary Data

### Features

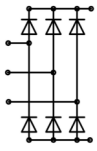
- Compact design
- One screw mounting
- Heat transfer and insulation through direct copper bonded aluminium oxide ceramic (DCB
- Up to 1600V reverse voltage
- High surge currents
- Glass passived diodes chips
- UL recognized, file no. E 63 532

### Typical Applications*

- Input rectifier for power supplies
- Rectifier

| $V_{RSM}$ V | $V_{RRM}$, $V_{DRM}$ V | $I_D$ = 55 A (full conduction) ($T_s$ = 80 °C) |
|---|---|---|
| 800 | 800 | SK 55 D 08 |
| 1200 | 1200 | SK 55 D 12 |
| 1600 | 1600 | SK 55 D 16 |

| Symbol | Conditions | Values | Units |
|---|---|---|---|
| $I_D$ | $T_s$ = 80 °C | 55 | A |
| $I_D$ | $T_s$ = 100 °C | 45 | A |
| $I_{FSM}$ | $T_{vj}$ = 25 °C; 10 ms | 220 | A |
| | $T_{vj}$ = 150 °C; 10 ms | 200 | A |
| i²t | $T_{vj}$ = 25 °C; 8,3...10 ms | 242 | A²s |
| | $T_{vj}$ = 150 °C; 8,3...10 ms | 200 | A²s |
| $V_F$ | $T_{vj}$ = 25 °C; $I_F$ = 25 A | max. 1,25 | V |
| $V_{(TO)}$ | $T_{vj}$ = 150 °C | max. 0,8 | V |
| $r_T$ | $T_{vj}$ = 150 °C | max. 13 | mΩ |
| $I_{RD}$ | $T_{vj}$ = 150 °C; $V_{DD}$ = $V_{DRM}$; $V_{RD}$ = $V_{RRM}$ | max. 4 | mA |
| | | | mA |
| $R_{th(j-s)}$ | per diode | 2,15 | K/W |
| | per module | 0,36 | K/W |
| $T_{solder}$ | terminals, 10s | 260 | °C |
| $T_{vj}$ | | -40...+150 | °C |
| $T_{stg}$ | | -40...+125 | °C |
| $V_{isol}$ | a. c. 50 Hz; r.m.s.; 1 s / 1 min. | 3000 ( 2500 ) | V |
| $M_s$ | mounting torque to heatsink | 2 | Nm |
| $M_t$ | | | |
| m | approx. weight | 19 | g |
| Case | SEMITOP® 2 | T 7 | |



D

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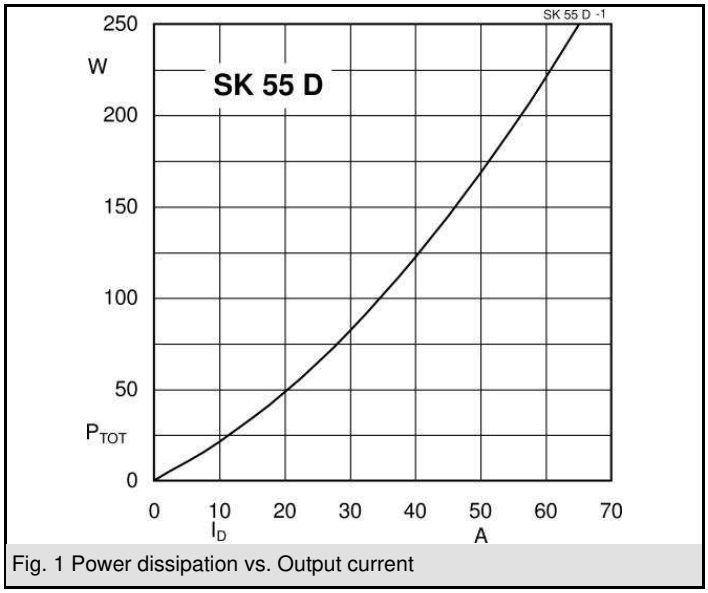



Fig. 1 Power dissipation vs. Output current

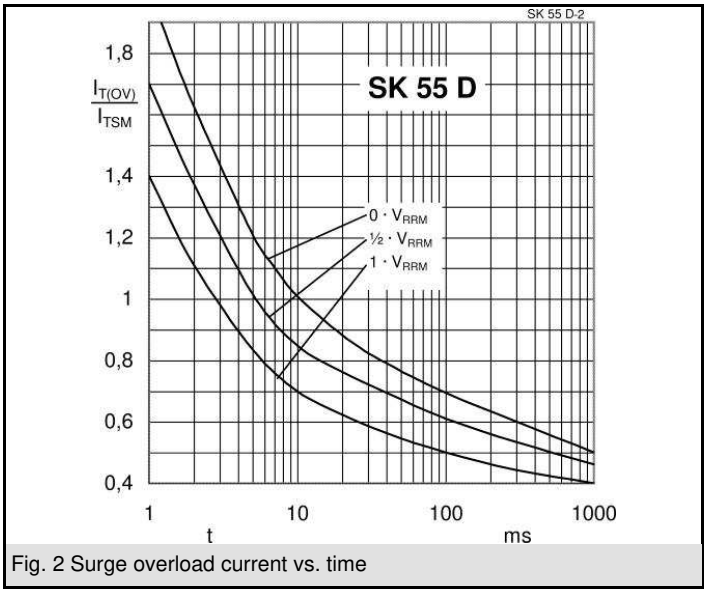



Fig. 2 Surge overload current vs. time

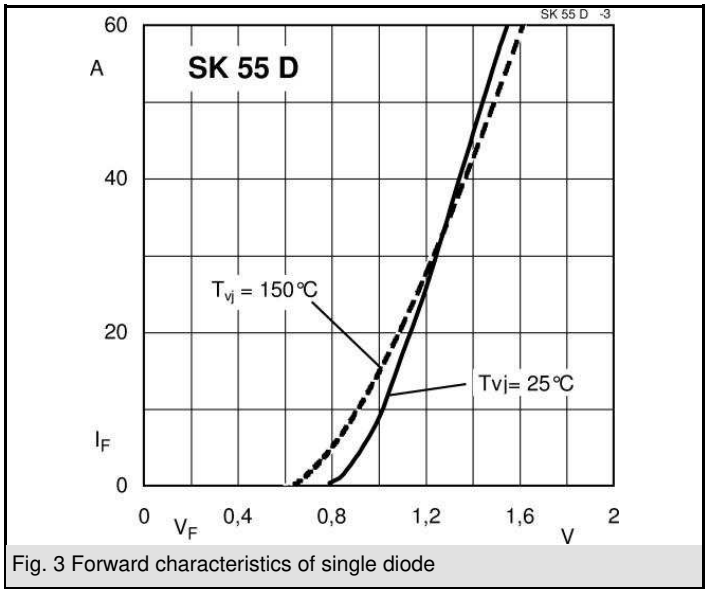
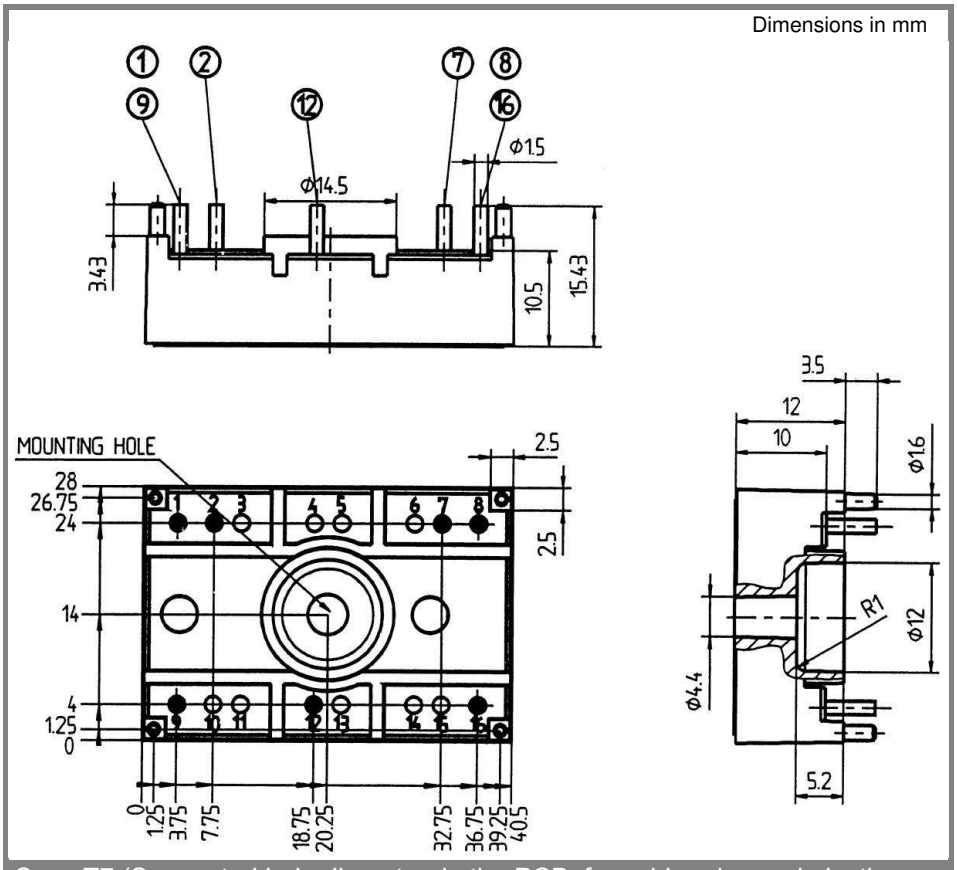


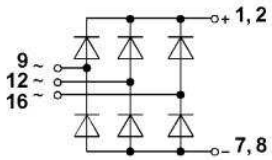

Fig. 3 Forward characteristics of single diode

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# SK 55 D




Case T7 (Suggested hole diameter, in the PCB, for solder pins and plastic mounting pins = 2mm)




Case T7 D

* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.

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