# SKKD 260

THYRISTOR BRIDGE,SCR,BRIDGE



**SEMIPACK® 3**

## Rectifier Diode Modules

**SKKD 260**

### Features

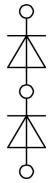
- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precious metal pressure contacts
- UL recognized, file no. E 63 532

### Typical Applications*

- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors

| $V_{RSM}$ V | $V_{RRM}$ V | $I_{FRMS}$ = 410 A (maximum value for continuous operation)<br>$I_{FAV}$ = 260 A (sin. 180; $T_c$ = 85 °C) | | |
|---|---|---|---|---|
| 900 | 800 | SKKD 260/08 | | |
| 1300 | 1200 | SKKD 260/12 | | |
| 1700 | 1600 | SKKD 260/16 | | |
| 2100 | 2000 | SKKD 260/20H4 | | |
| 2300 | 2200 | SKKD 260/22H4 | | |

| Symbol | Conditions | Values | Units |
|---|---|---|---|
| $I_{FAV}$ | sin. 180; $T_c$ = 85 (100) °C | 260 (185) | A |
| $I_D$ | P3/180F; $T_a$ = 35 °C; B2 / B6 | 280 / 320 | A |
| | P16/200F; $T_a$ = 35 °C; B2 / B6 | 490 / 655 | A |
| $I_{FSM}$ | $T_{vj}$ = 25 °C; 10 ms | 11000 | A |
| | $T_{vj}$ = 130 °C; 10 ms | 10000 | A |
| $i^2t$ | $T_{vj}$ = 25 °C; 8,3 ... 10 ms | 605000 | $A^2s$ |
| | $T_{vj}$ = 130 °C; 8,3 ... 10 ms | 500000 | $A^2s$ |
| $V_F$ | $T_{vj}$ = 25 °C; $I_F$ = 750 A | max. 1,25 | V |
| $V_{(TO)}$ | $T_{vj}$ = 130 °C | max. 0,9 | V |
| $r_T$ | $T_{vj}$ = 130 °C | max. 0,37 | mΩ |
| $I_{RD}$ | $T_{vj}$ = 130 °C; $V_{RD}$ = $V_{RRM}$ | max. 10 | mA |
| $R_{th(j-c)}$ | cont.; per diode / per module | 0,14 / 0,07 | K/W |
| | sin. 180; per diode / per module | 0,15 / 0,075 | K/W |
| $R_{th(c-s)}$ | per diode / per module | 0,04 / 0,02 | K/W |
| $T_{vj}$ | | - 40 ... + 130 | °C |
| $T_{stg}$ | | - 40 ... + 130 | °C |
| $V_{isol}$ | a. c. 50 Hz; r.m.s.; 1 s / 1 min. | 3600 / 3000 | V~ |
| $V_{isol}$ | a. c. 50 Hz; r.m.s.; 1 s / 1 min. for SKK ...H4 | 4800 / 4000 | V~ |
| $M_s$ | to heatsink | 5 ± 15 % | Nm |
| $M_t$ | to terminals | 9 ± 15 % | Nm |
| a | | 5 * 9,81 | m/s² |
| m | approx. | 600 | g |
| Case | | A 78b | |



**SKKD**

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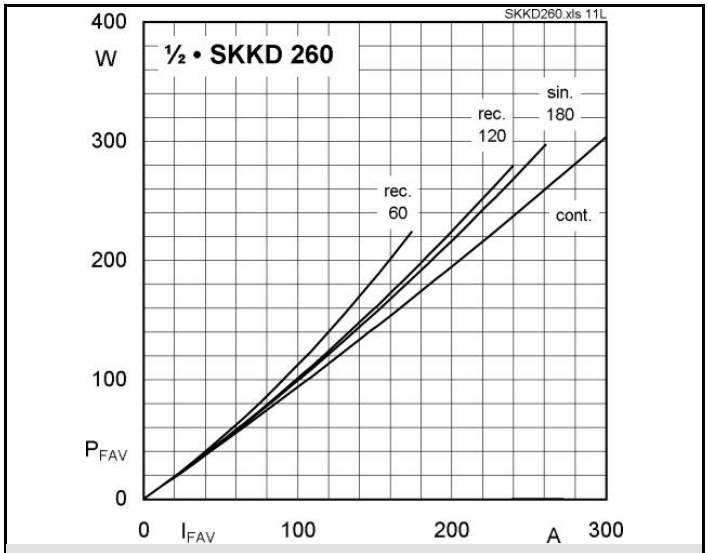



Fig. 11L Power dissipation per diode vs. forward current

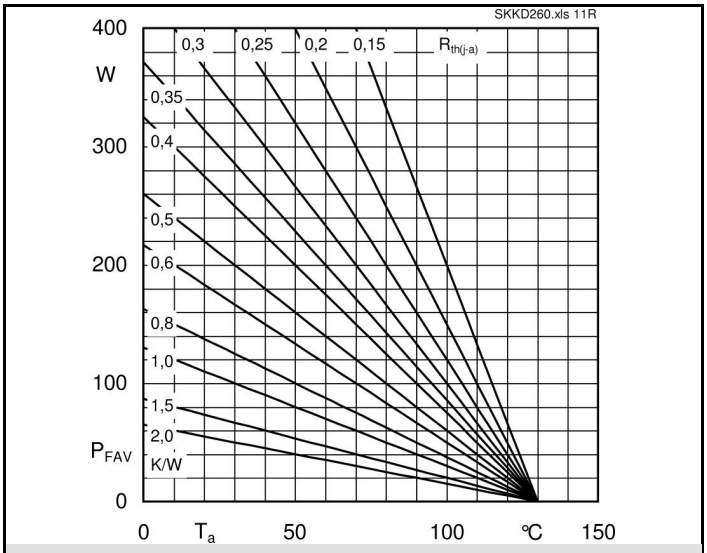



Fig. 11R Power dissipation per diode vs. ambient temperature

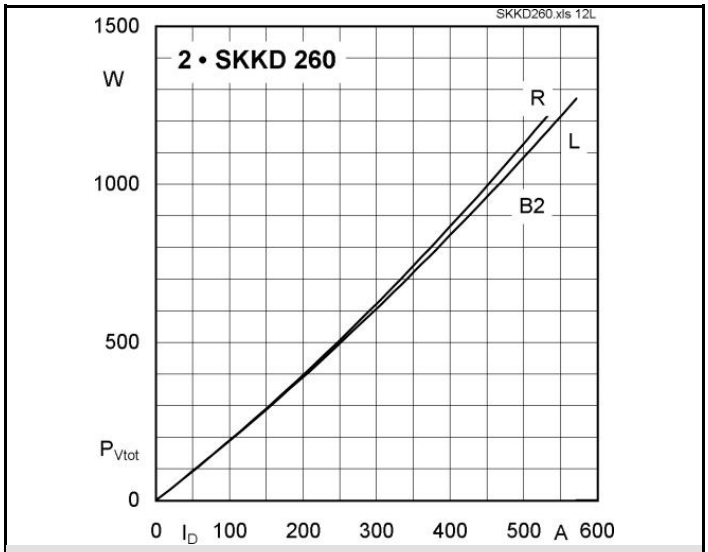



Fig. 12L Power dissipation of two modules vs. direct current

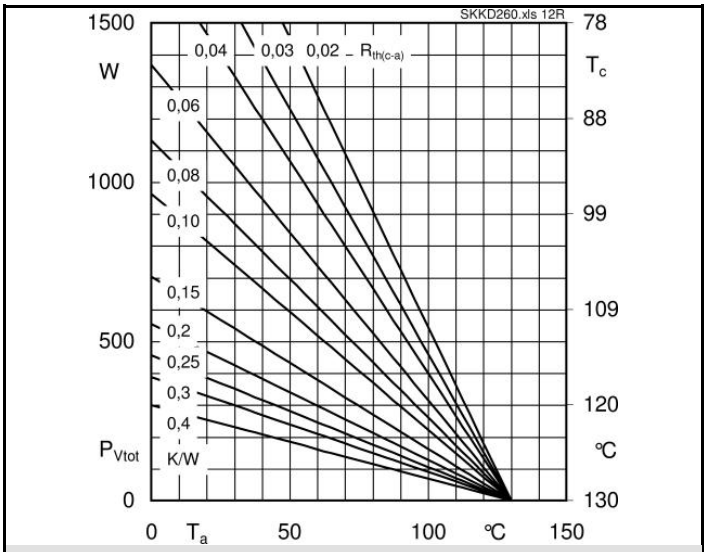



Fig. 12R Power dissipation of two modules vs. case temperature

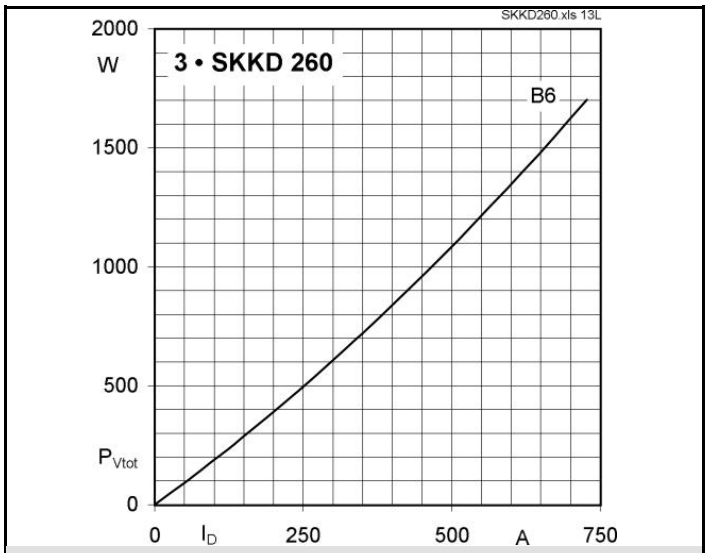



Fig. 13L Power dissipation of three modules vs. direct current

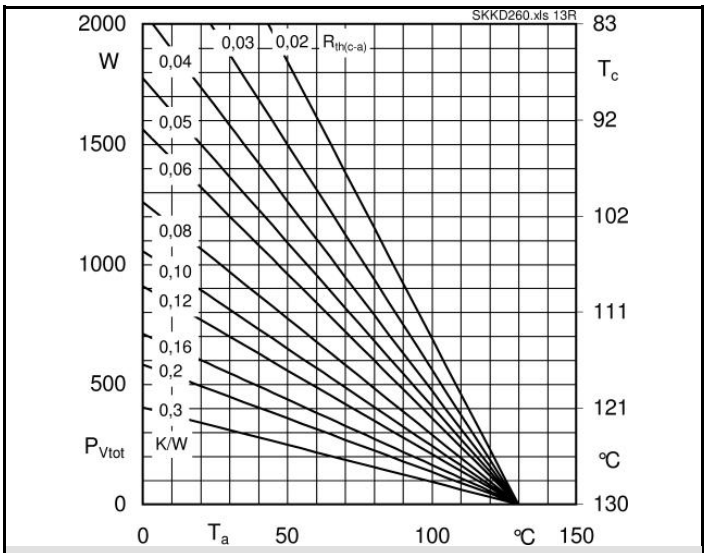



Fig. 13R Power dissipation of three modules vs. case temperature

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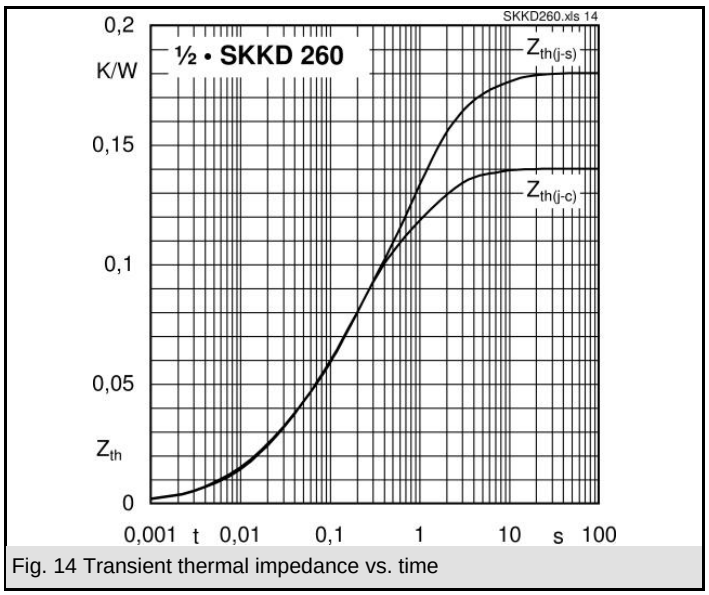



Fig. 14 Transient thermal impedance vs. time

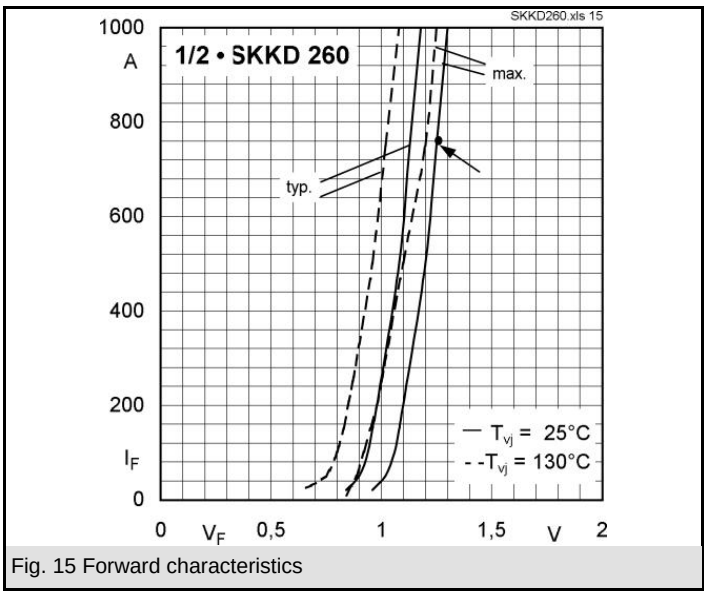



Fig. 15 Forward characteristics

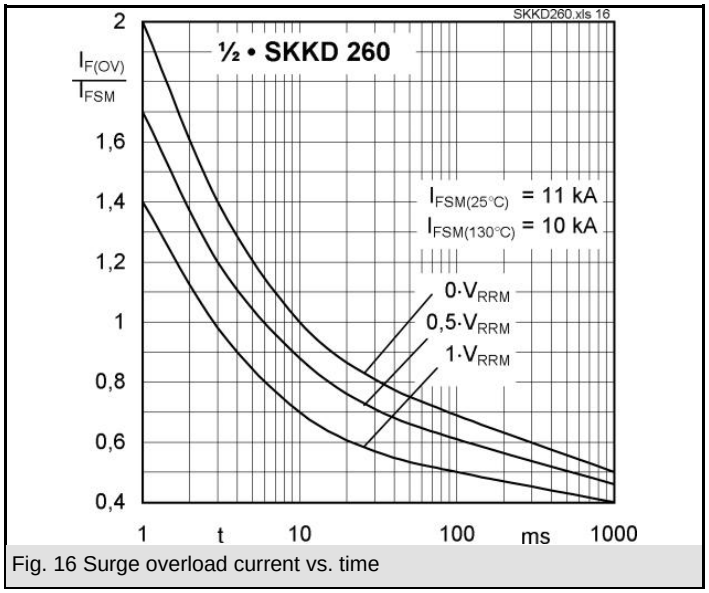
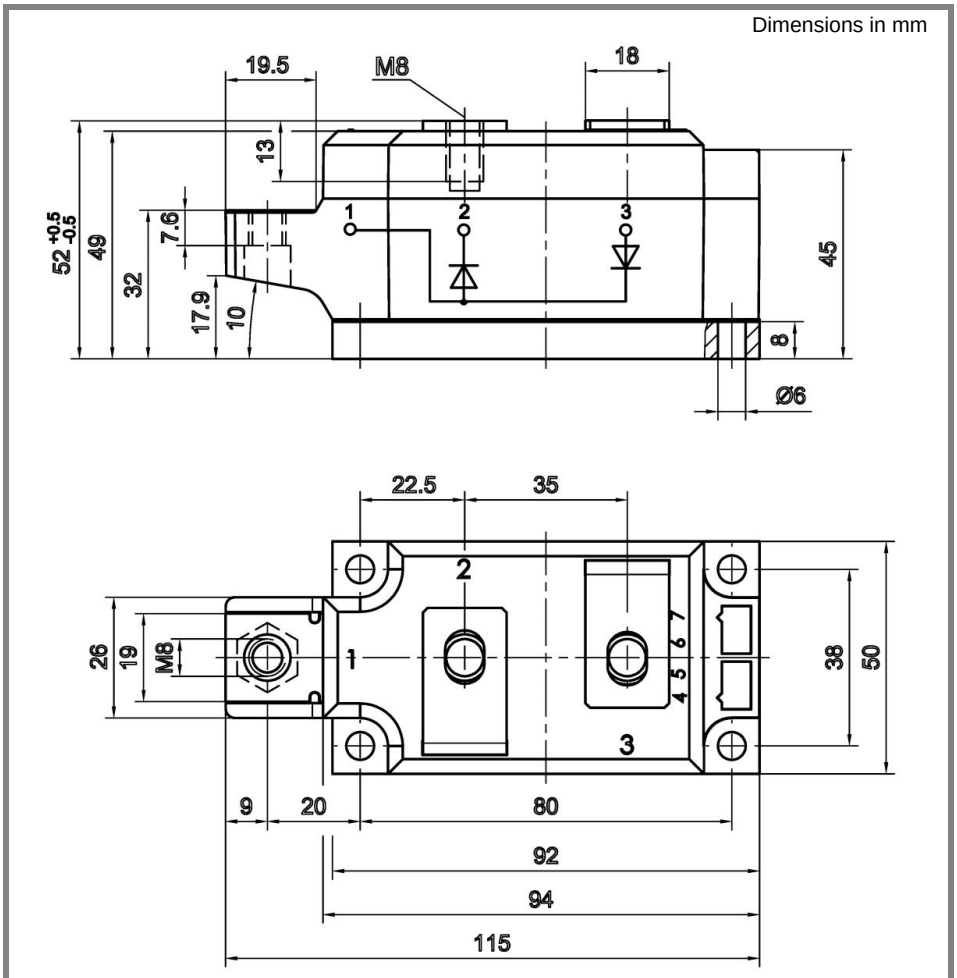



Fig. 16 Surge overload current vs. time

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Case A 78b

* 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 staff.

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