



**SEMIPACK®5**

## Rectifier Diode Modules

### SKKD 701

#### Features

- Heat transfer through aluminium nitride ceramic insulated metal baseplate
- Precise metal pressure contacts for high reliability
- UL recognized, file no. E63532

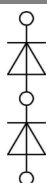
#### Typical Applications\*

- Uncontrolled rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controller
- Field supply for DC motors

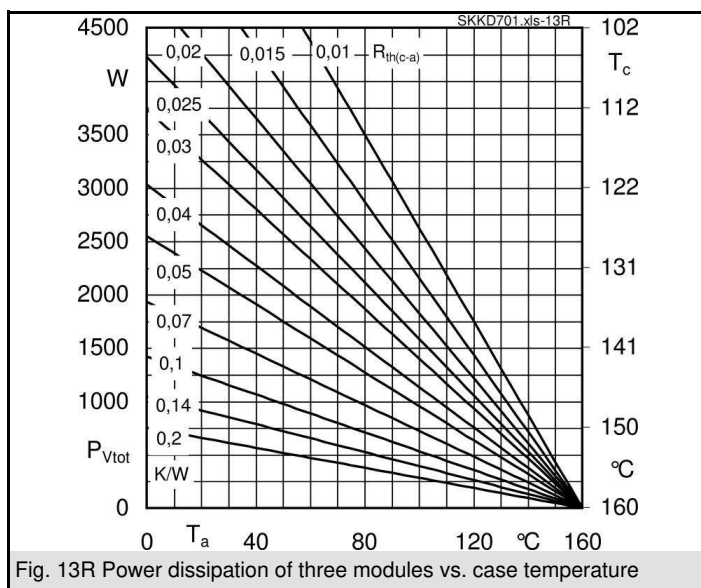
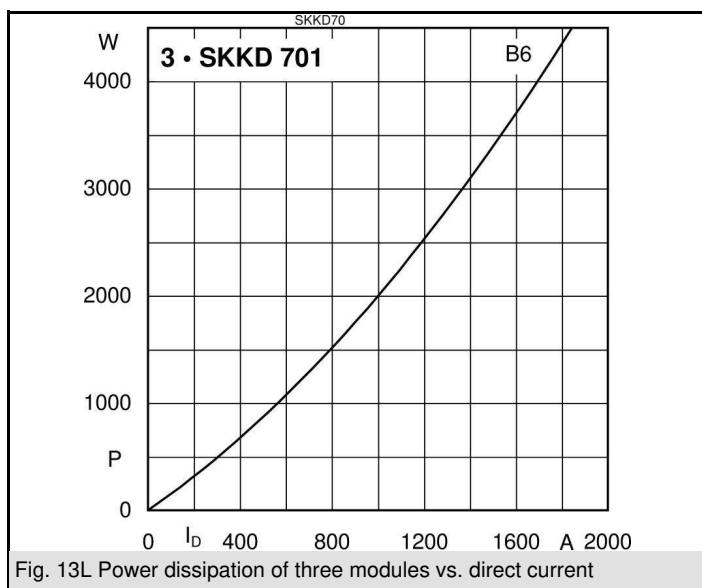
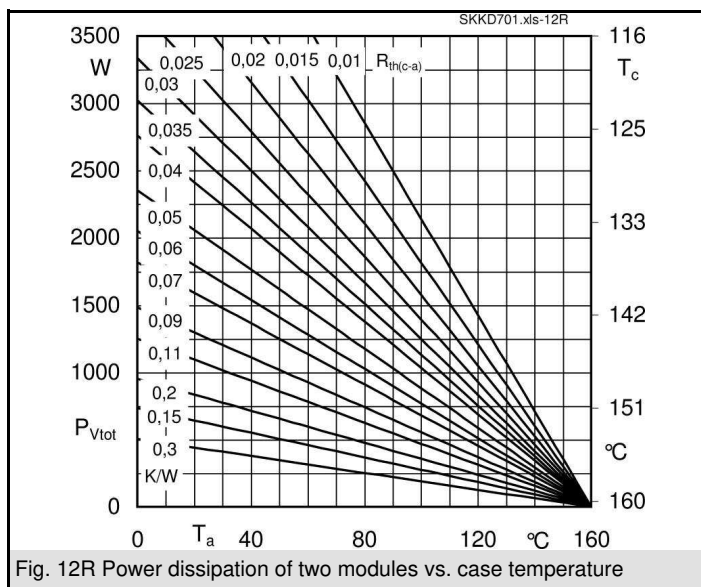
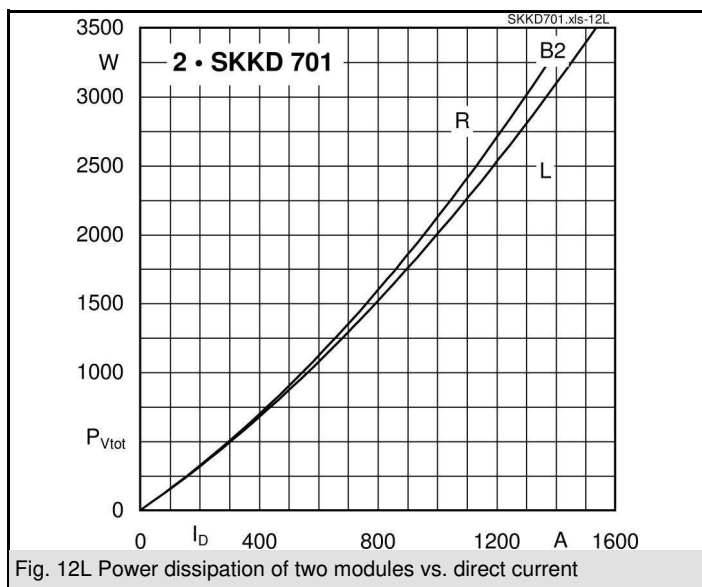
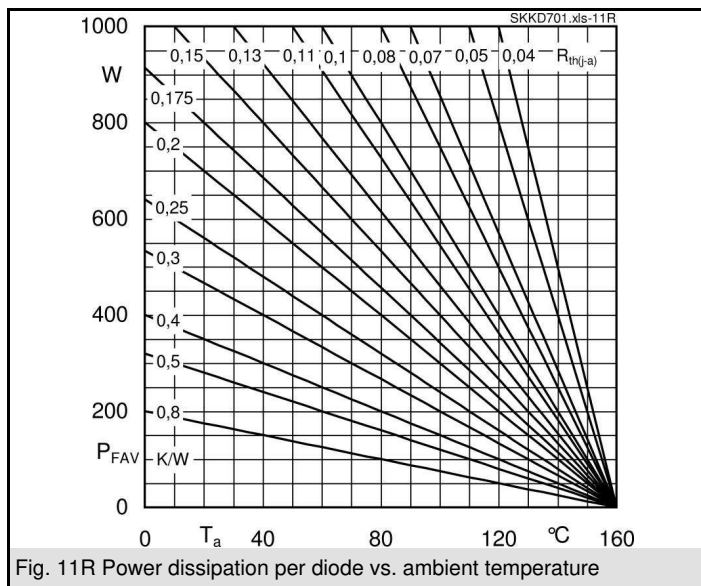
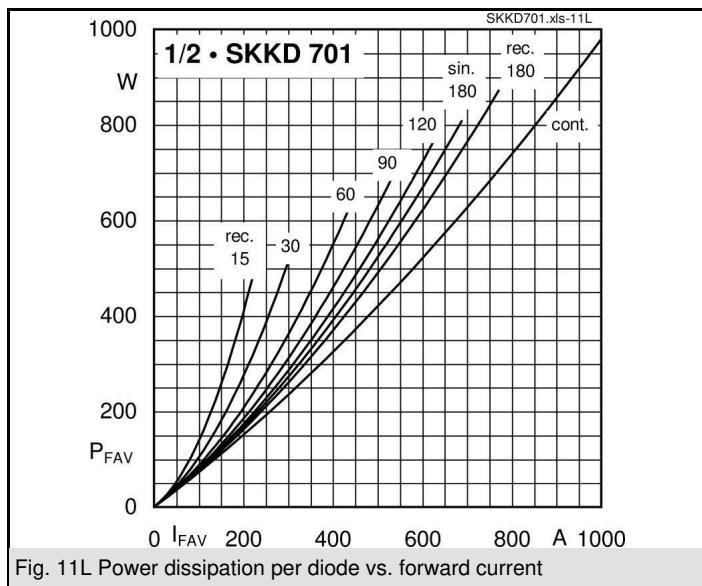
1) see assembly instructions

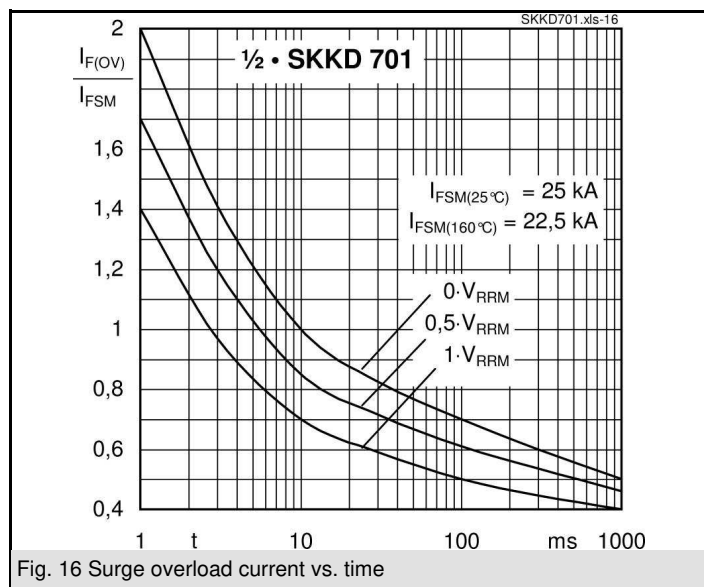
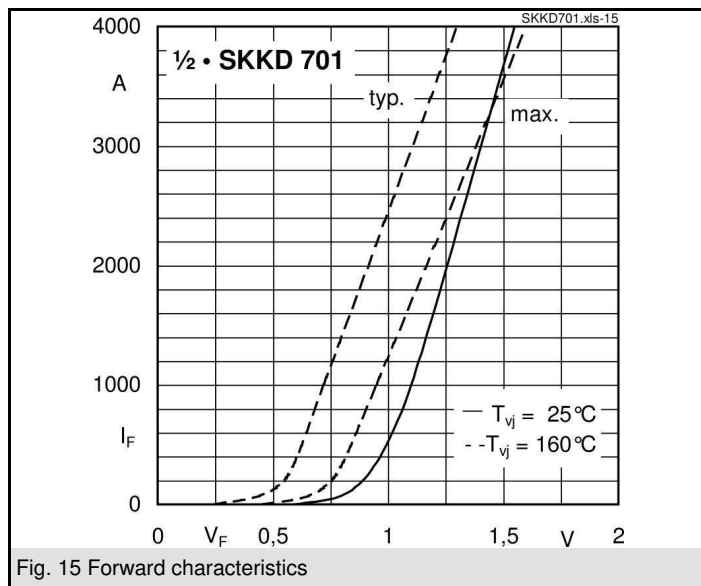
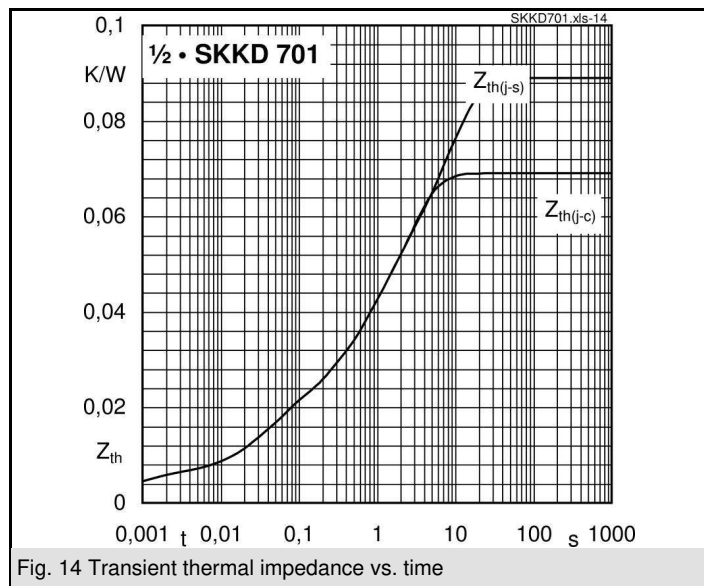
| $V_{RSM}$<br>V | $V_{RRM}$<br>V | $I_{FRMS} = 1100$ A (maximum value for continuous operation)<br>$I_{FAV} = 701$ A (sin. 180; $T_C = 100$ °C) |  |  |
|----------------|----------------|--------------------------------------------------------------------------------------------------------------|--|--|
| 1300           | 1200           | SKKD 701/12                                                                                                  |  |  |
| 1700           | 1600           | SKKD 701/16                                                                                                  |  |  |
| 1900           | 1800           | SKKD 701/18                                                                                                  |  |  |
| 2300           | 2200           | SKKD 701/22 H4                                                                                               |  |  |

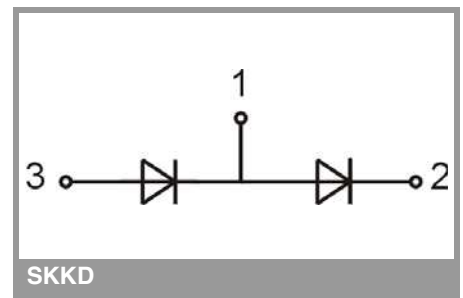
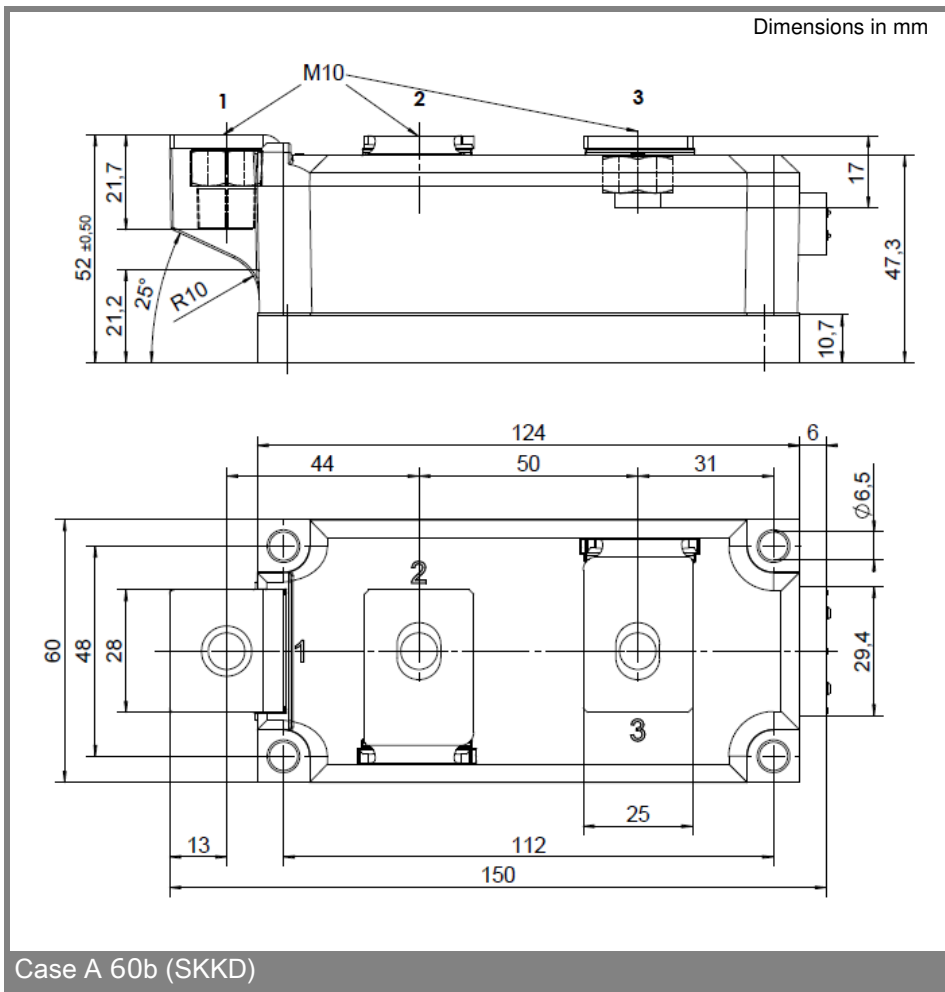
| Symbol        | Conditions                                     | Values                     | Units |
|---------------|------------------------------------------------|----------------------------|-------|
| $I_{FAV}$     | sin. 180; $T_C = 100$ (85) °C                  | 701 (820)                  | A     |
| $I_{FSM}$     | $T_{vj} = 25$ °C; 10 ms                        | 25000                      | A     |
|               | $T_{vj} = 160$ °C; 10 ms                       | 22500                      | A     |
| $i^2t$        | $T_{vj} = 25$ °C; 8,3 ... 10 ms                | 3125000                    | A²s   |
|               | $T_{vj} = 160$ °C; 8,3 ... 10 ms               | 2531250                    | A²s   |
| $V_F$         | $T_{vj} = 25$ °C; $I_F = 2000$ A               | max. 1,25                  | V     |
| $V_{(TO)}$    | $T_{vj} = 160$ °C                              | max. 0,7                   | V     |
| $r_T$         | $T_{vj} = 160$ °C                              | max. 0,28                  | mΩ    |
| $I_{RD}$      | $T_{vj} = 160$ °C; $V_{RD} = V_{RRM}$          | max. 30                    | mA    |
| $R_{th(j-c)}$ | cont.; per diode / per module                  | 0,069 / 0,034              | K/W   |
|               | sin. 180; per diode / per module               | 0,072 / 0,036              | K/W   |
|               | rec. 120; per diode / per module               | 0,077 / 0,038              | K/W   |
| $R_{th(c-s)}$ | per diode / per module                         | 0,02 / 0,01                | K/W   |
| $T_{vj}$      |                                                | - 40 ... + 160             | °C    |
| $T_{stg}$     |                                                | - 40 ... + 125             | °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                                    | $5 \pm 15$ % <sup>1)</sup> | Nm    |
| $M_t$         | to terminals                                   | $12 \pm 15$ %              | Nm    |
| $a$           |                                                | $5 * 9,81$                 | m/s²  |
| $m$           | approx.                                        | 1400                       | g     |
| Case          |                                                | A 60b                      |       |



**SKKD**







This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, chapter IX.

#### \*IMPORTANT INFORMATION AND WARNINGS

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