



**SEMIPACK<sup>®</sup> 1**

| $V_{RSM}$<br>V | $V_{RRM}$<br>V | $I_{FRMS} = 140$ A (maximum value for continuous operation)<br>$I_{FAV} = 80$ A (sin. 180; $T_c = 87$ °C) |  |
|----------------|----------------|---|--|
| 500            | 400            | SKKE 81/04  |  |
| 700            | 600            | SKKE 81/06  |  |
| 900            | 800            | SKKE 81/08  |  |
| 1300           | 1200           | SKKE 81/12  |  |
| 1500           | 1400           | SKKE 81/14  |  |
| 1700           | 1600           | SKKE 81/16  |  |
| 1900           | 1800           | SKKE 81/18  |  |
| 2100           | 2000           | SKKE 81/20 H4   |  |
| 2300           | 2200           | SKKE 81/22 H4   |  |

## Rectifier Diode Modules

### SKKE 81

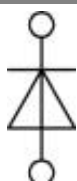
#### Features

- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532

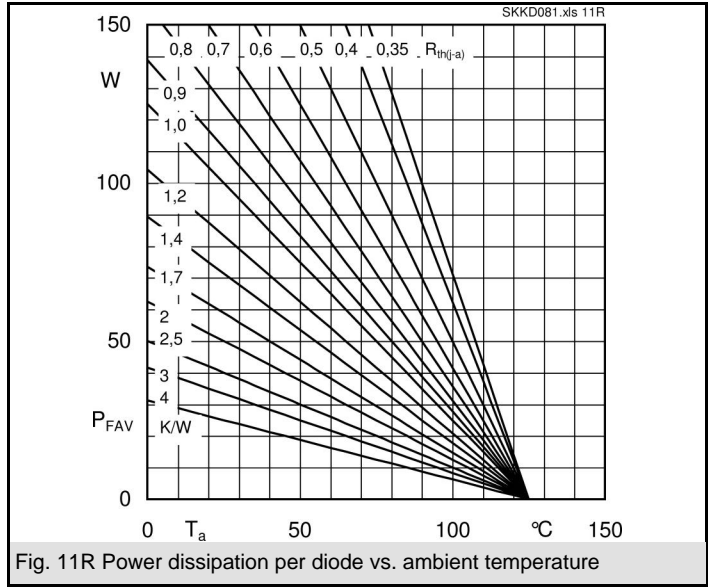
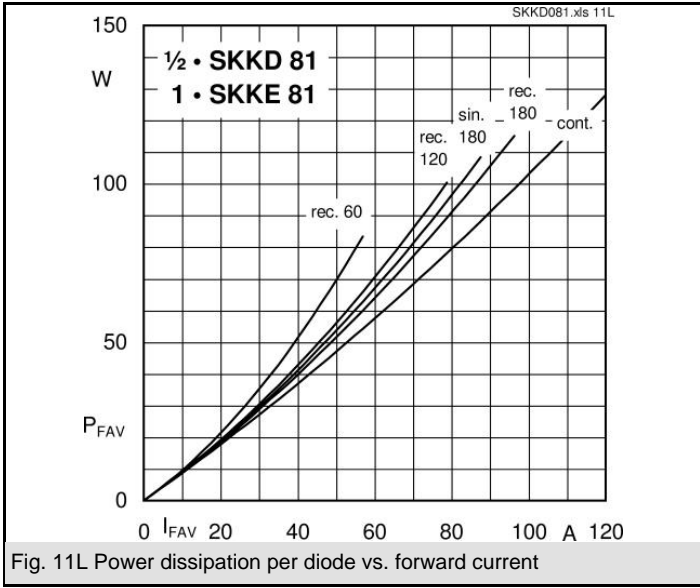
#### Typical Applications\*

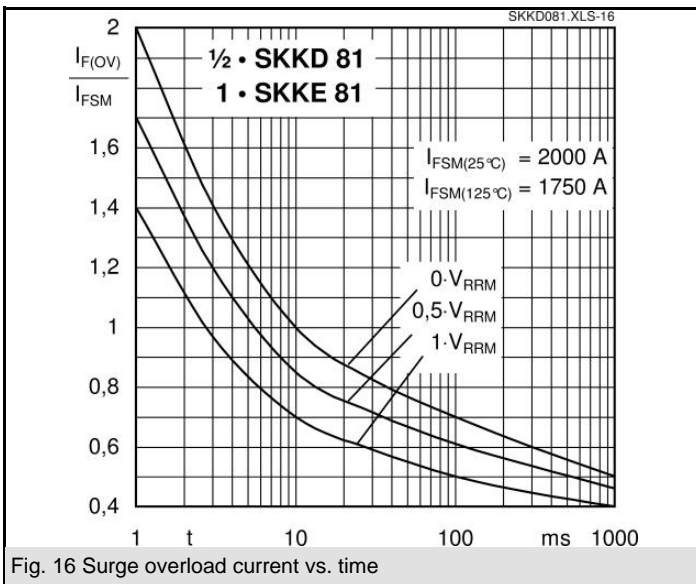
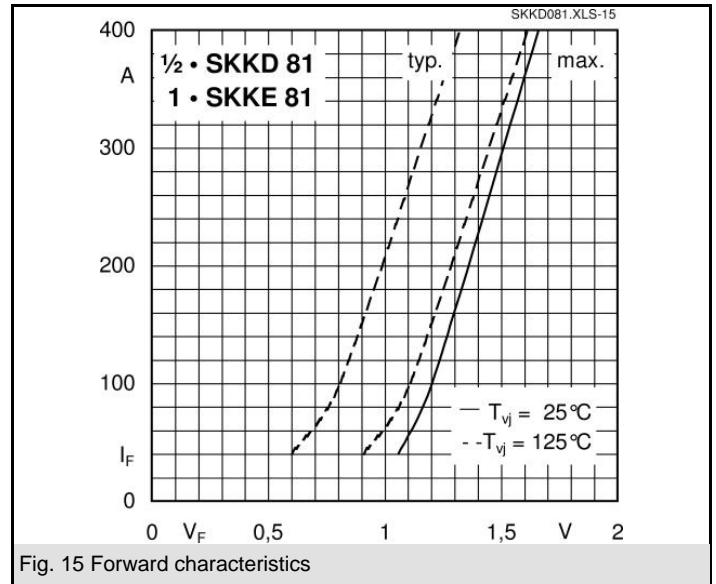
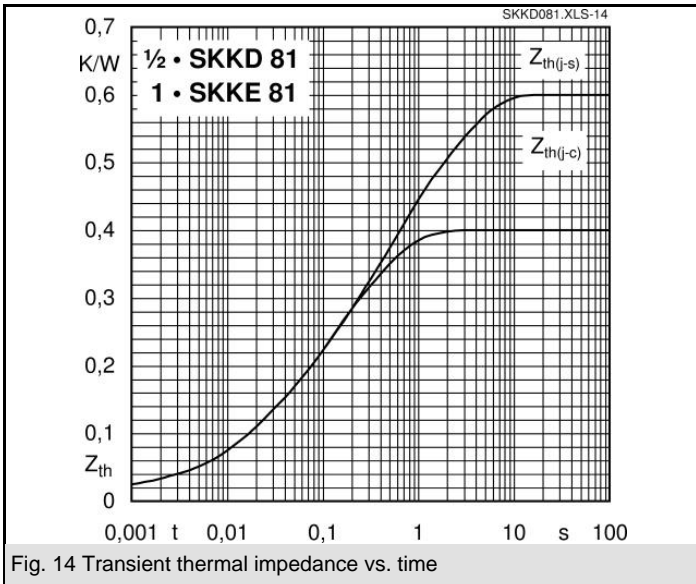
- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors
- Free-wheeling diodes

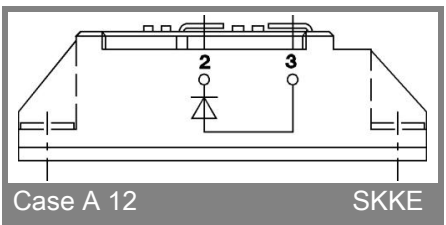
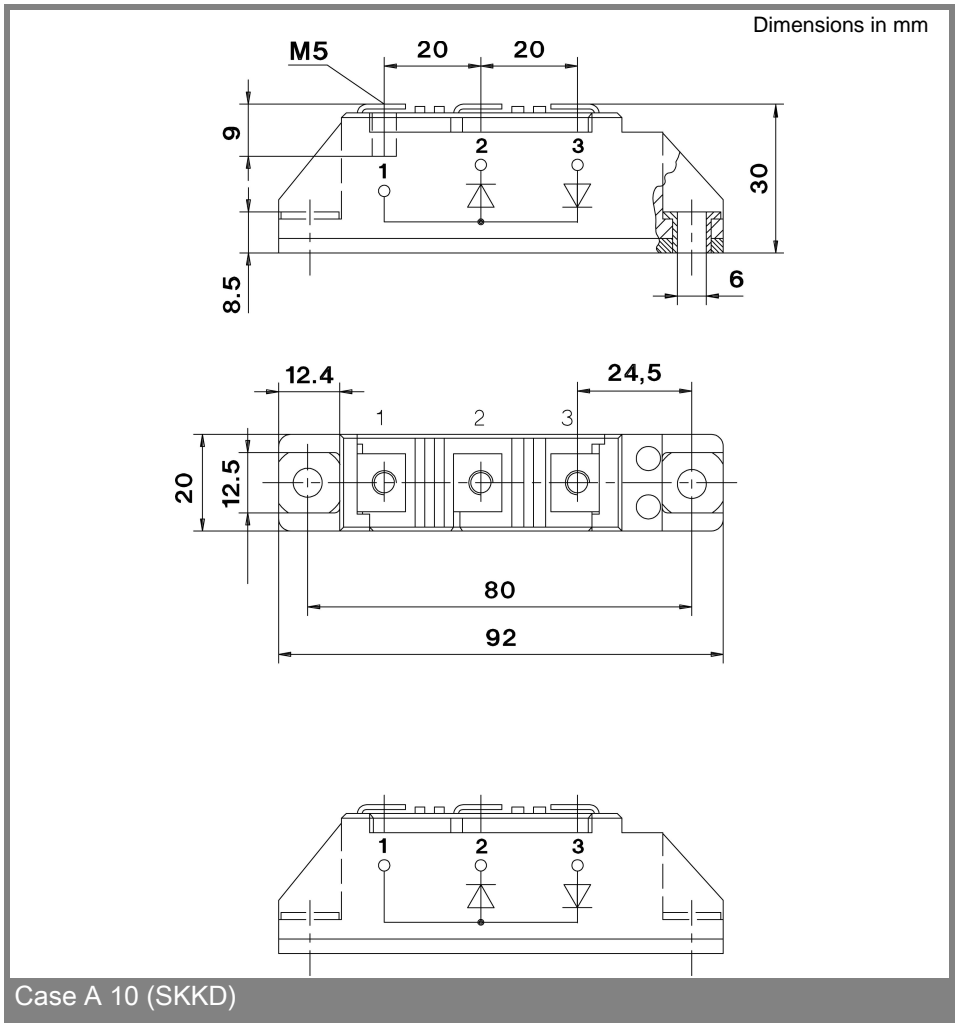
| Symbol        | Conditions                                     | Values         | Units            |
|---------------|--|----------------|------------------|
| $I_{FAV}$     | sin. 180; $T_c = 85$ (100) °C                  | 82 (57)        | A                |
| $I_D$         | P3/120; $T_a = 45$ °C; B2 / B6                 | 63 / 70        | A                |
|               | P3/180F; $T_a = 35$ °C; B2 / B6                | 135 / 175      | A                |
| $I_{FSM}$     | $T_{vj} = 25$ °C; 10 ms                        | 2000           | A                |
|               | $T_{vj} = 125$ °C; 10 ms                       | 1750           | A                |
| $i^2t$        | $T_{vj} = 25$ °C; 8,3 ... 10 ms                | 20000          | A <sup>2</sup> s |
|               | $T_{vj} = 125$ °C; 8,3 ... 10 ms               | 15000          | A <sup>2</sup> s |
| $V_F$         | $T_{vj} = 25$ °C; $I_F = 300$ A                | max. 1,55      | V                |
| $V_{(TO)}$    | $T_{vj} = 125$ °C                              | max. 0,85      | V                |
| $r_T$         | $T_{vj} = 125$ °C                              | max. 1,8       | mΩ               |
| $I_{RD}$      | $T_{vj} = 125$ °C; $V_{RD} = V_{RRM}$          | max. 4,5       | mA               |
| $R_{th(j-c)}$ | per diode / per module                         | 0,4 / 0,4      | K/W              |
| $R_{th(c-s)}$ | per diode / per module                         | 0,2 / 0,2      | K/W              |
| $T_{vj}$      |  | - 40 ... + 125 | °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 ± 15 %       | Nm               |
| $M_t$         | to terminals                                   | 3 ± 15 %       | Nm               |
| a             |  | 5 * 9,81       | m/s <sup>2</sup> |
| m             | approx.  | 95             | g                |
| Case          | SKKE   | A 12           |                  |



**SKKE**







\* 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.