

# SKKD 81, SKKE 81



SEMIPACK® 1

## Rectifier Diode Modules

SKKD 81

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

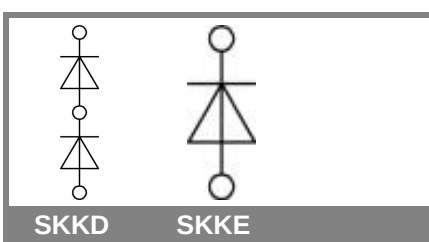
### Typical Applications

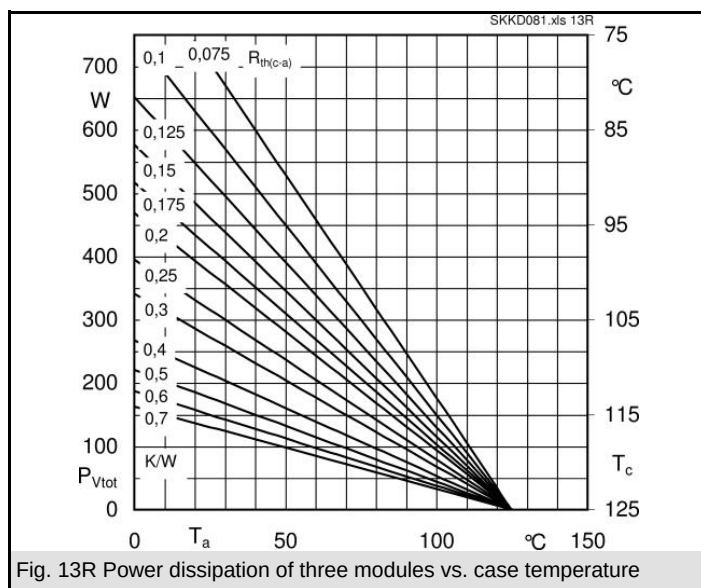
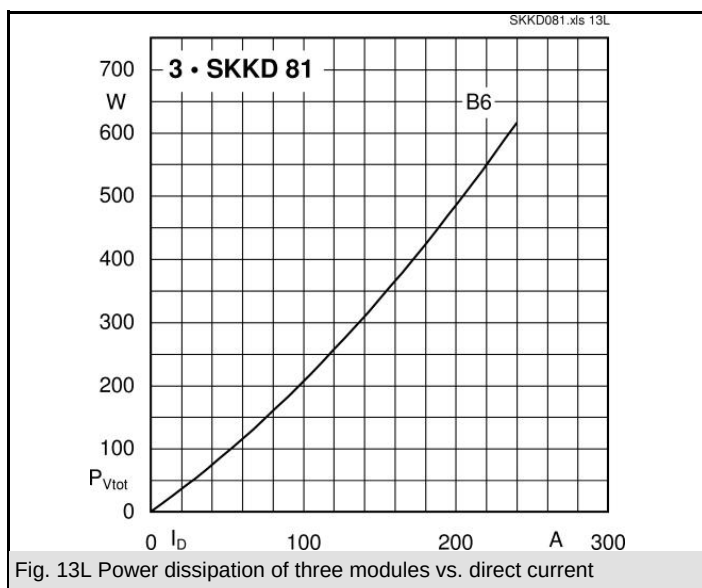
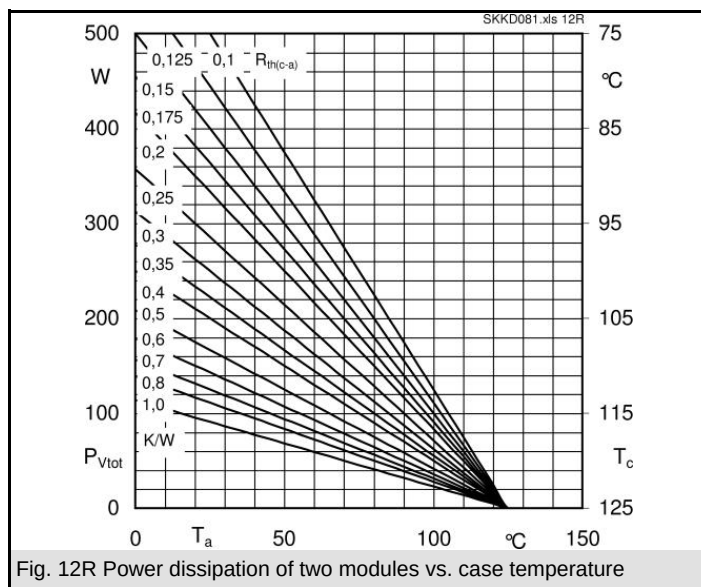
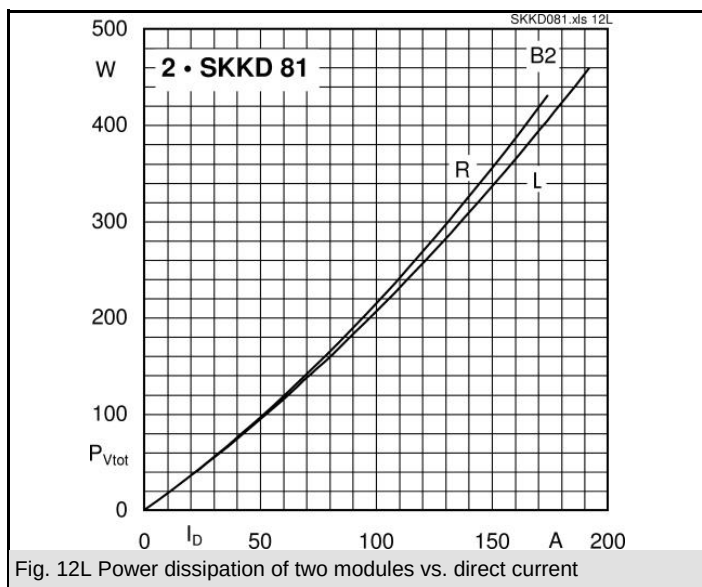
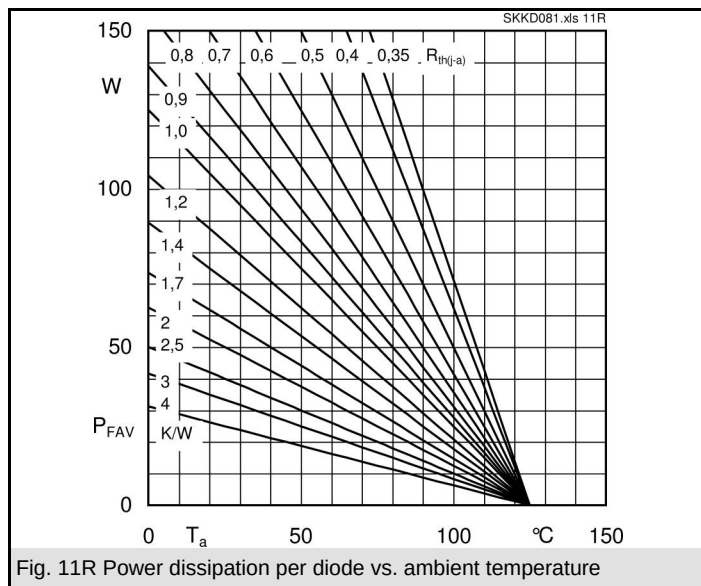
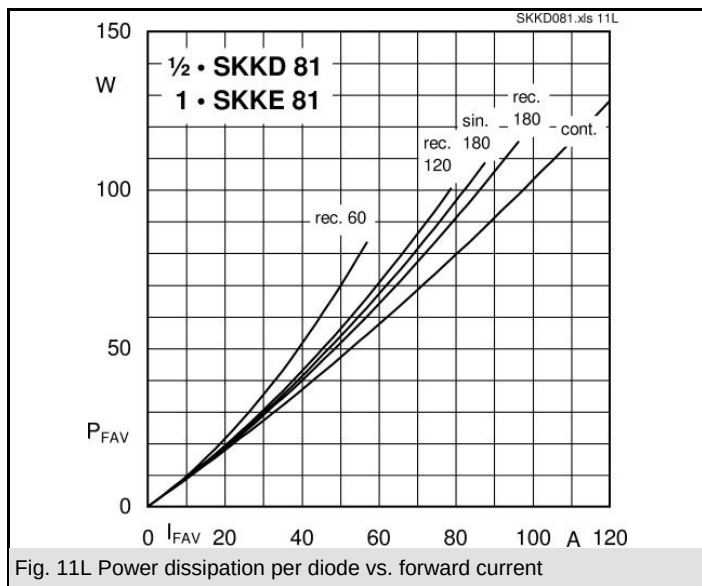
- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors
- Free-wheeling diodes

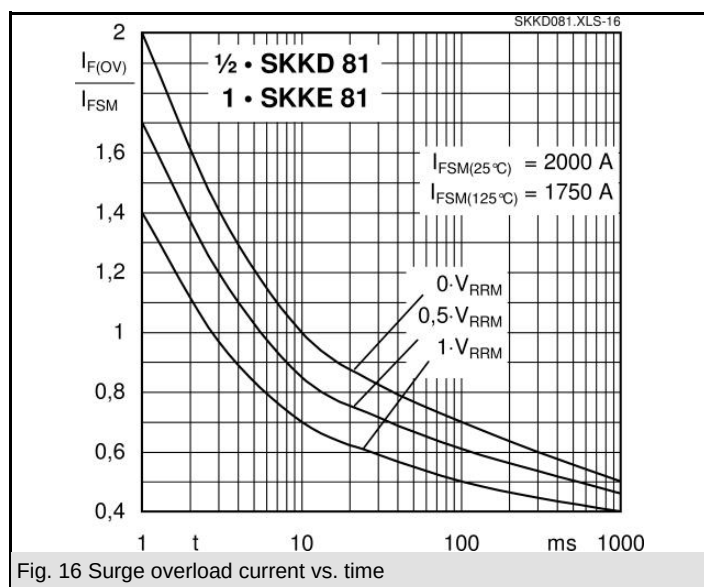
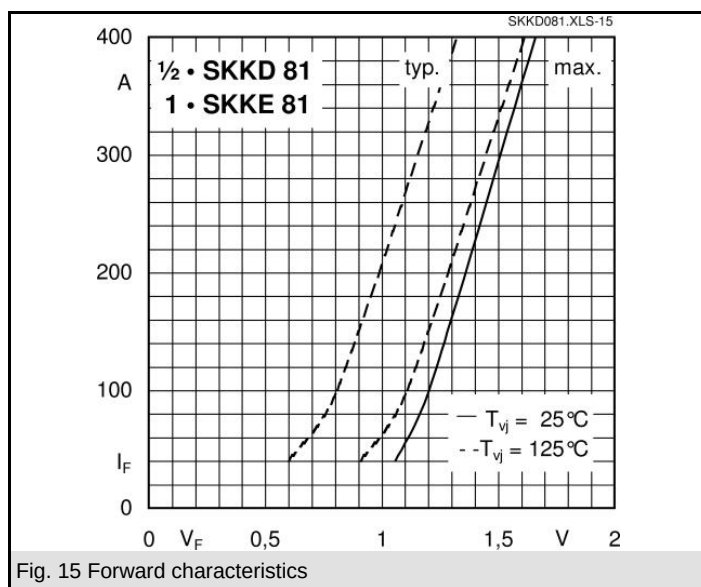
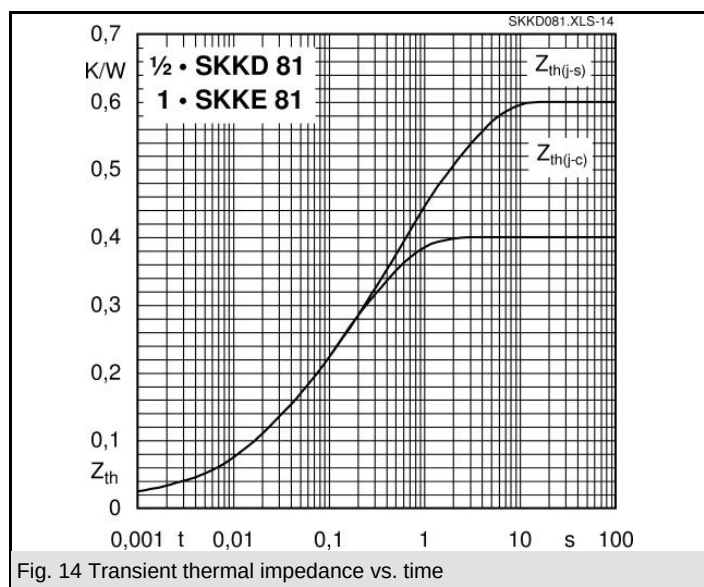
1) SKKD types only

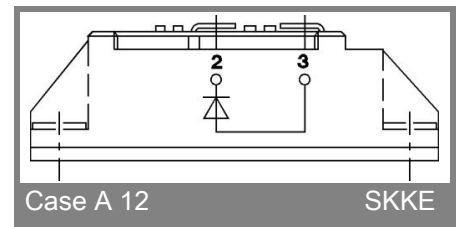
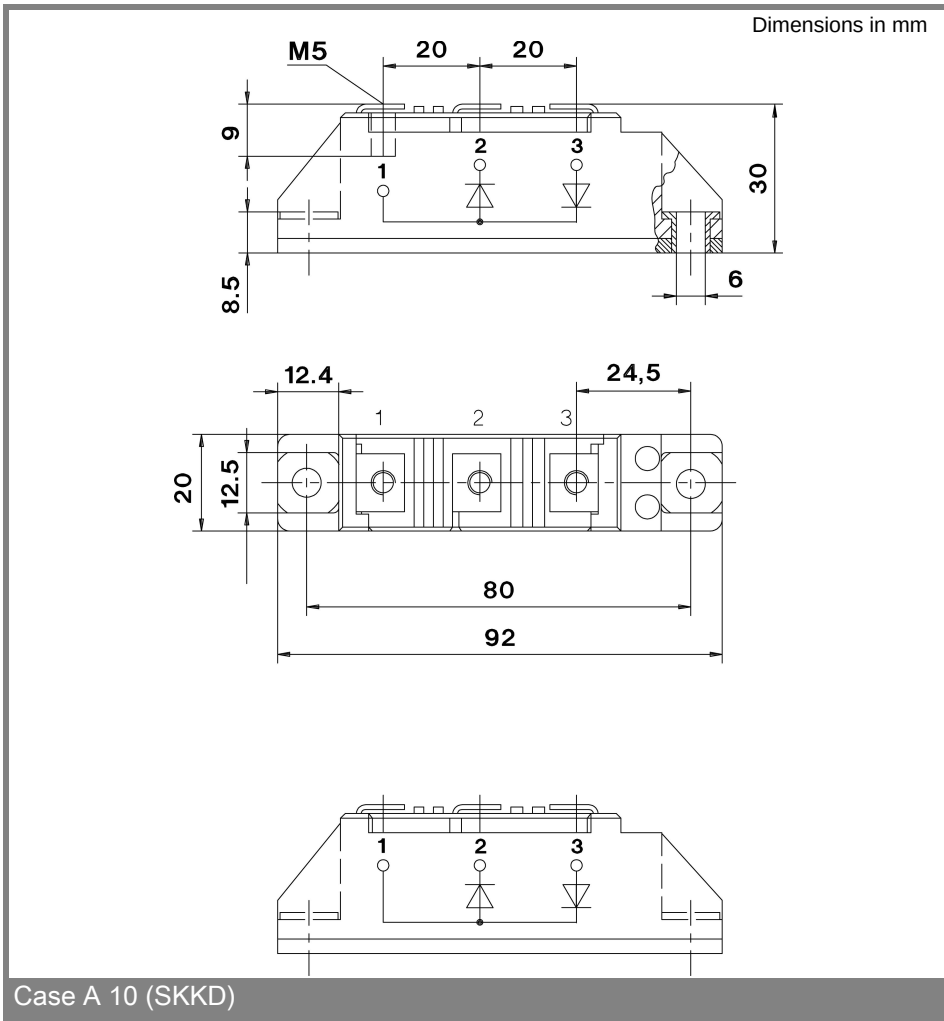
| $V_{RSM}$<br>V | $V_{RRM}$<br>V | $I_{FRMS} = 140$ A (maximum value for continuous operation)<br>$I_{FAV} = 80$ A (sin. 180; $T_c = 87$ °C) |              |
|----------------|----------------|-----------------------------------------------------------------------------------------------------------|--------------|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

| 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          | A²s   |
|               | $T_{vj} = 125$ °C; 8,3 ... 10 ms               | 15000          | A²s   |
| $V_F$         | $T_{vj} = 25$ °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 <sup>1)</sup>           | 0,4 / 0,2      | K/W   |
| $R_{th(c-s)}$ | per diode / per module <sup>1)</sup>           | 0,2 / 0,1      | 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/s²  |
| $m$           | approx.                                        | 95             | g     |
| Case          | SKKD                                           | A 10           |       |
|               | SKKE                                           | A 12           |       |









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