

SKKD 81, SKKE 81



SEMIPACK[®] 1

| V_{RSM} V | V_{RRM} V | $I_{FRMS} = 140$ A (maximum value for continuous operation) $I_{FAV} = 80$ 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 |

Rectifier Diode Modules

SKKD 81

SKKE 81

Features

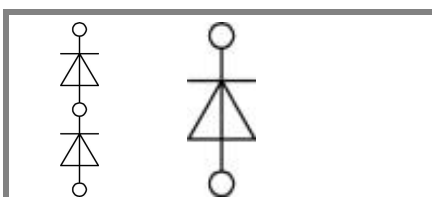
- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532

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

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



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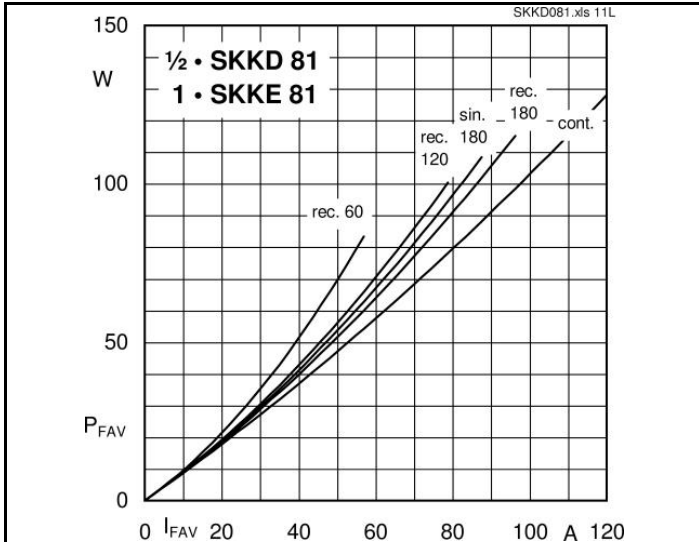


Fig. 11L Power dissipation per diode vs. forward current

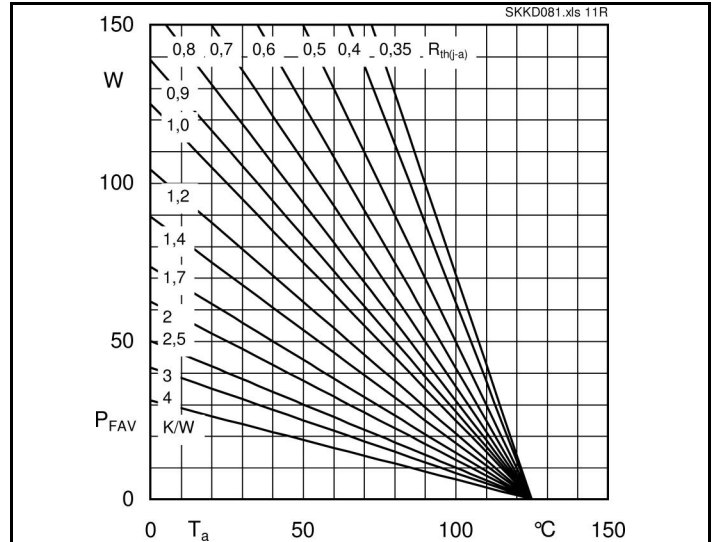


Fig. 11R Power dissipation per diode vs. ambient temperature

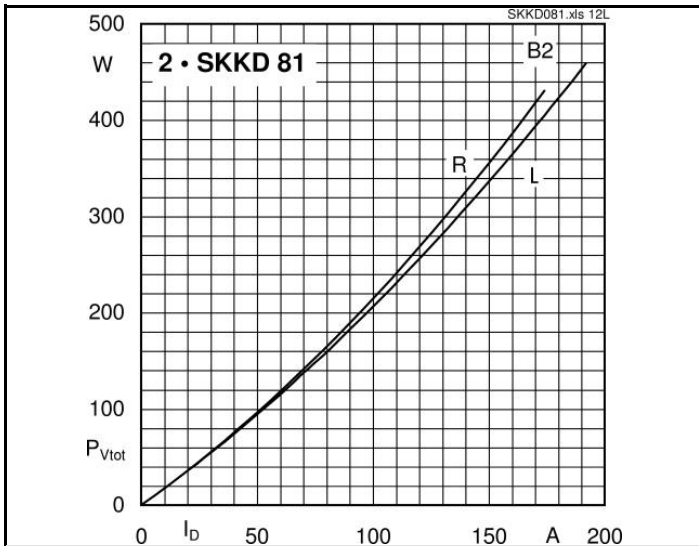


Fig. 12L Power dissipation of two modules vs. direct current

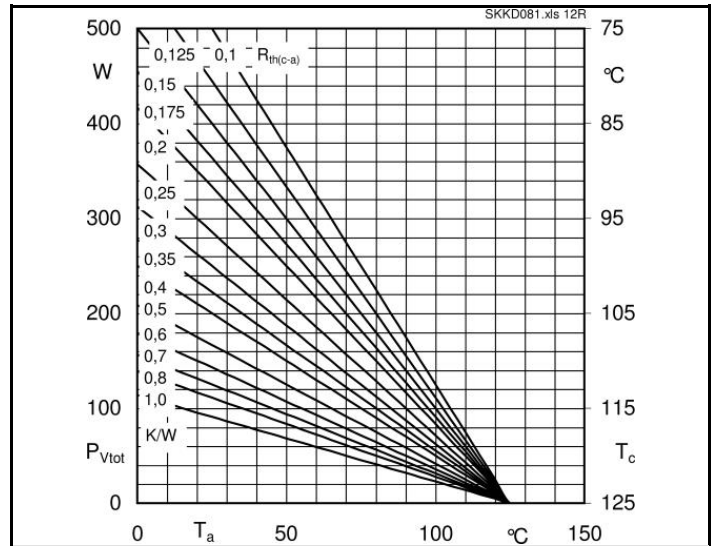


Fig. 12R Power dissipation of two modules vs. case temperature

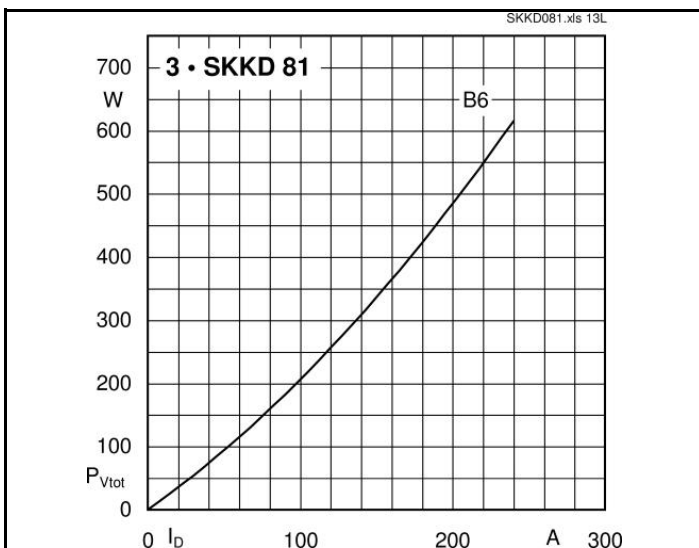


Fig. 13L Power dissipation of three modules vs. direct current

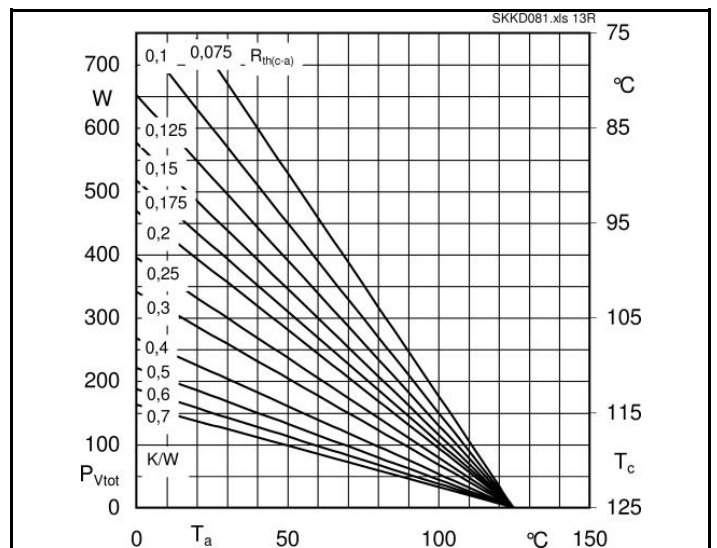
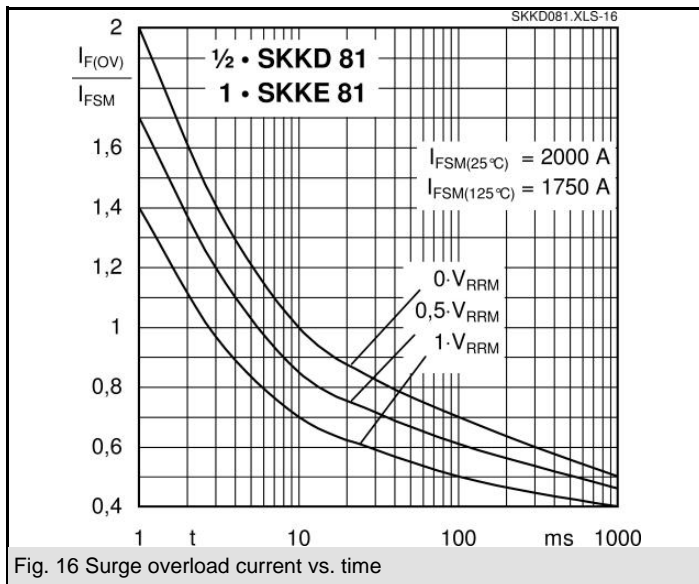
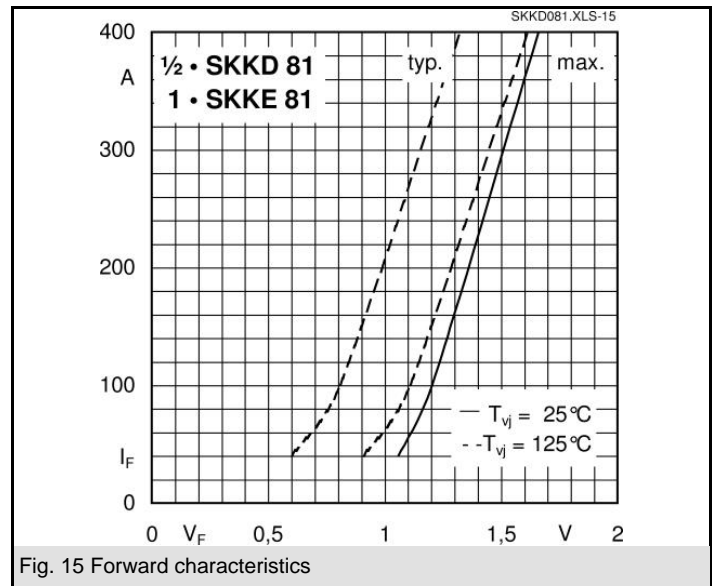
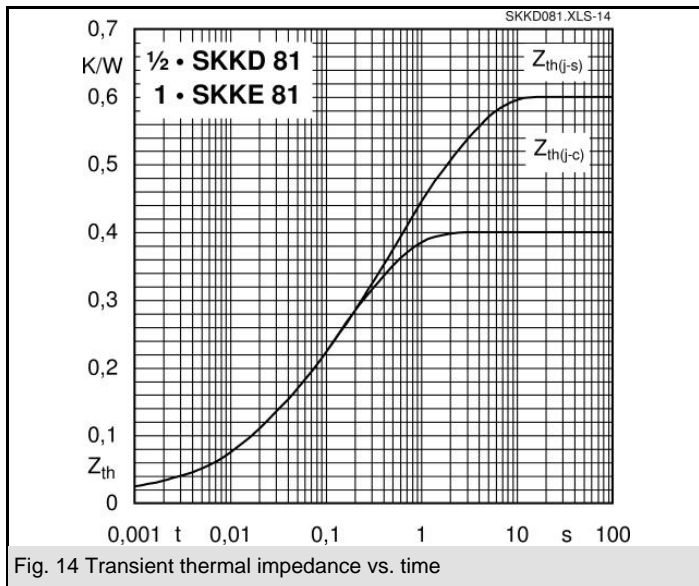
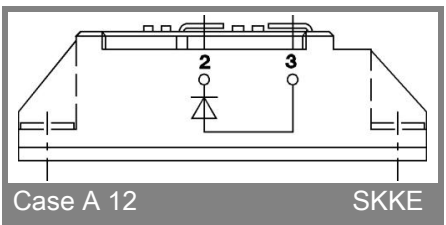
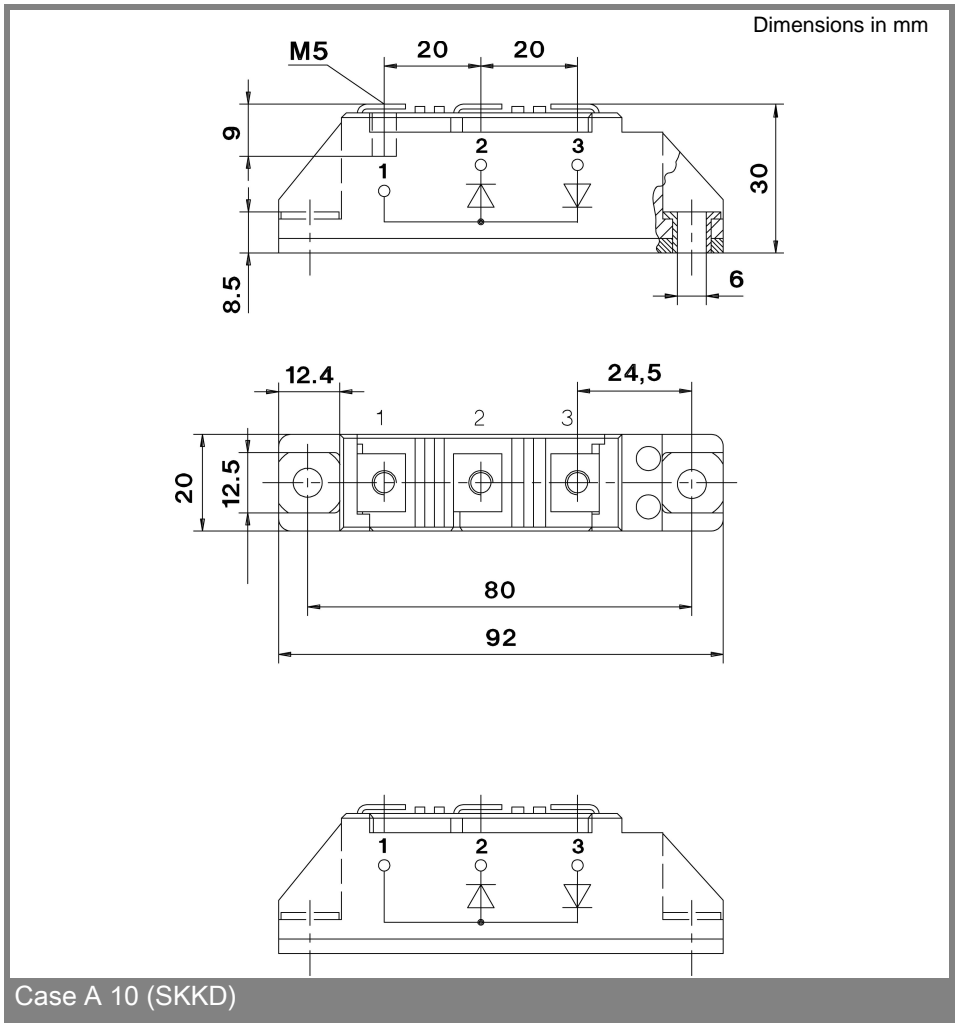


Fig. 13R Power dissipation of three modules vs. case temperature

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