



## SEMIPACK® 1

### Rectifier Diode Modules

#### SKKD 46

#### Features

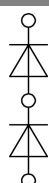
- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532

#### Typical Applications

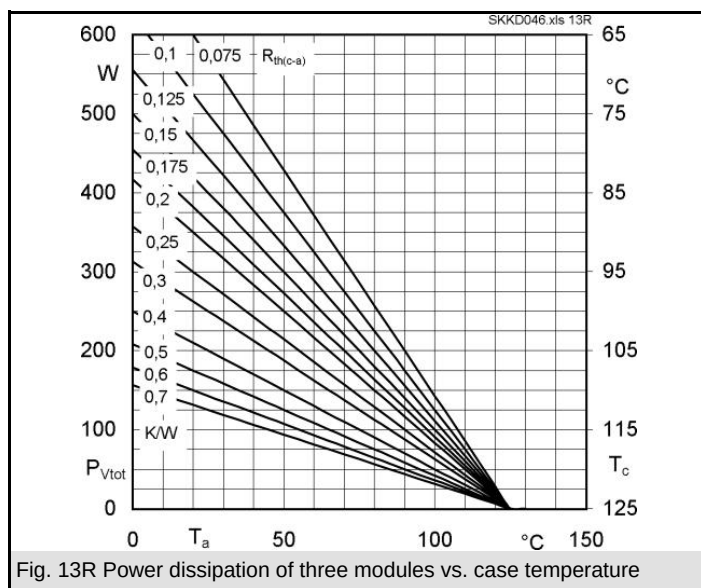
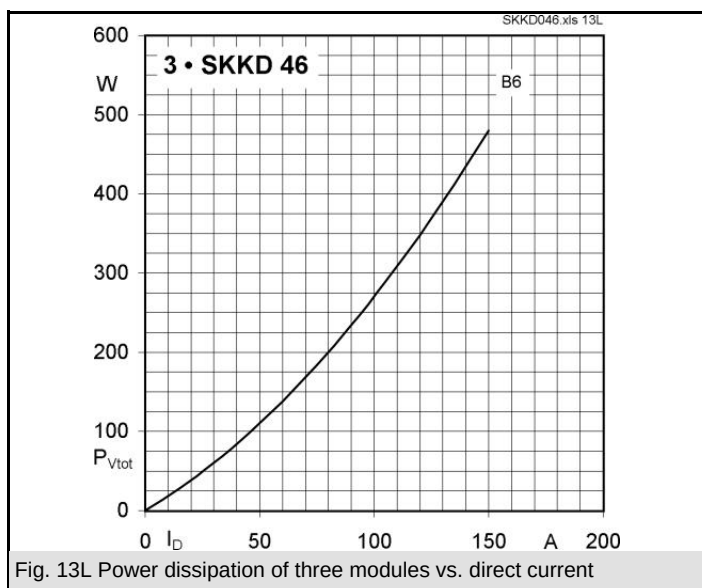
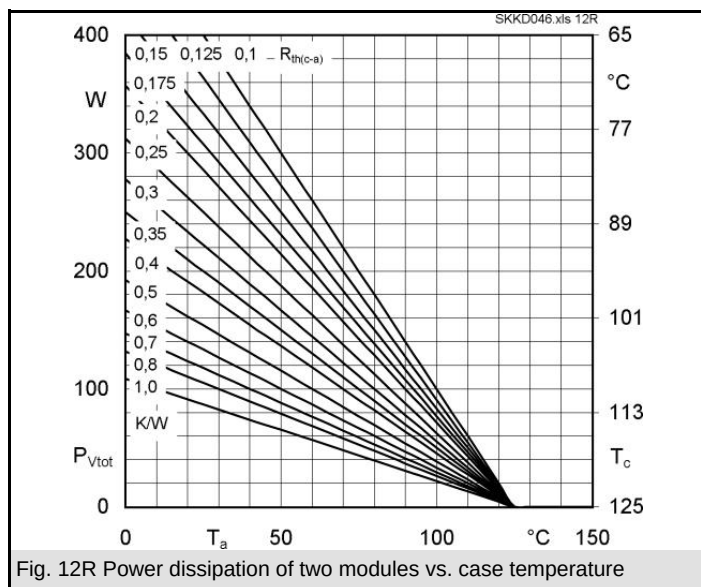
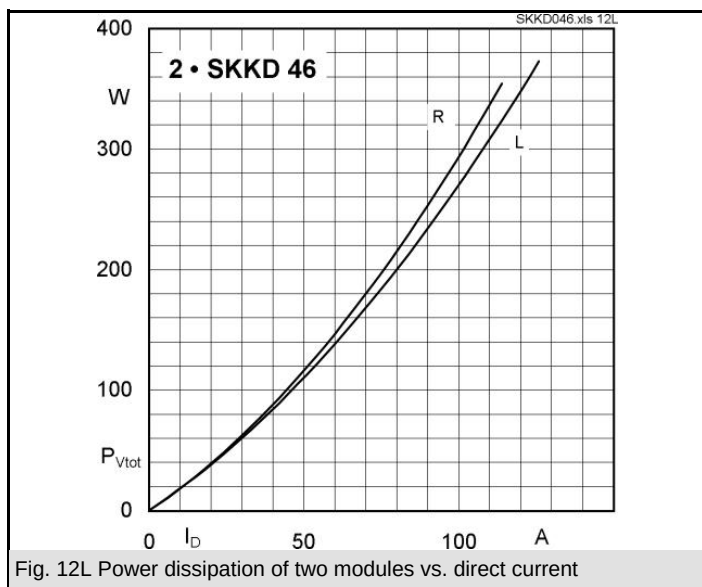
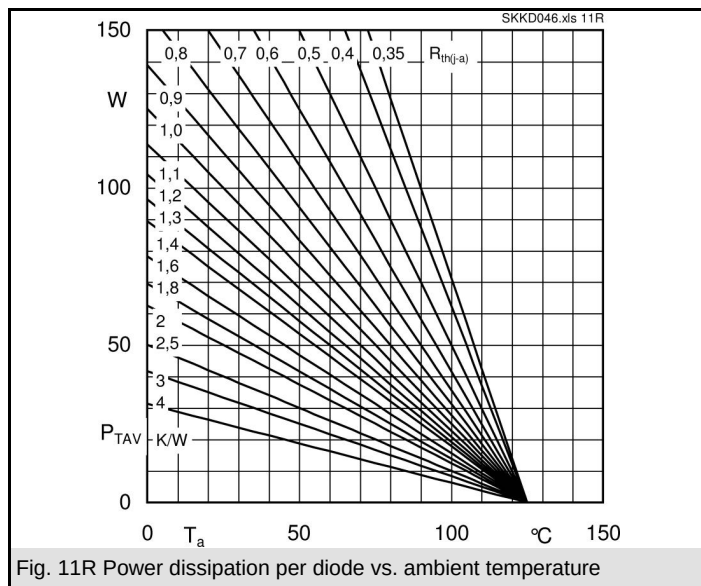
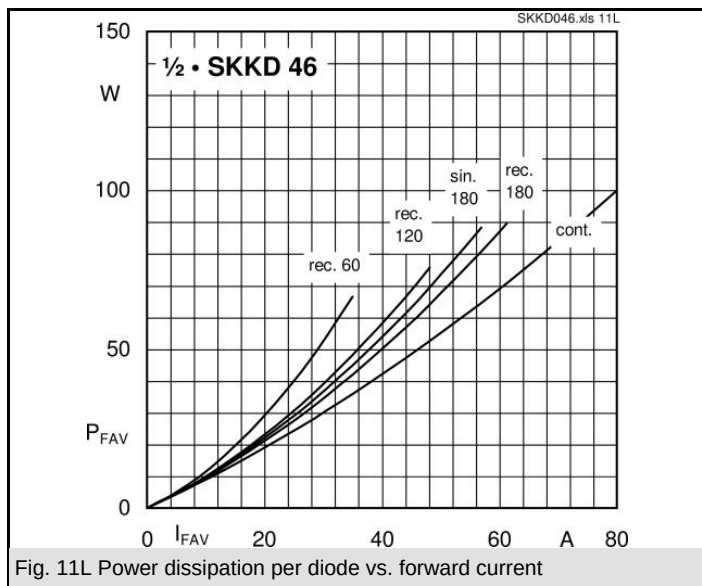
- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors

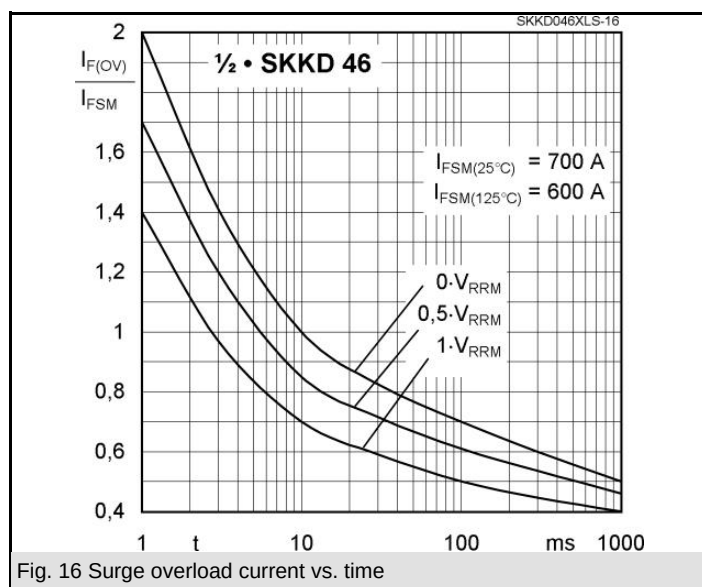
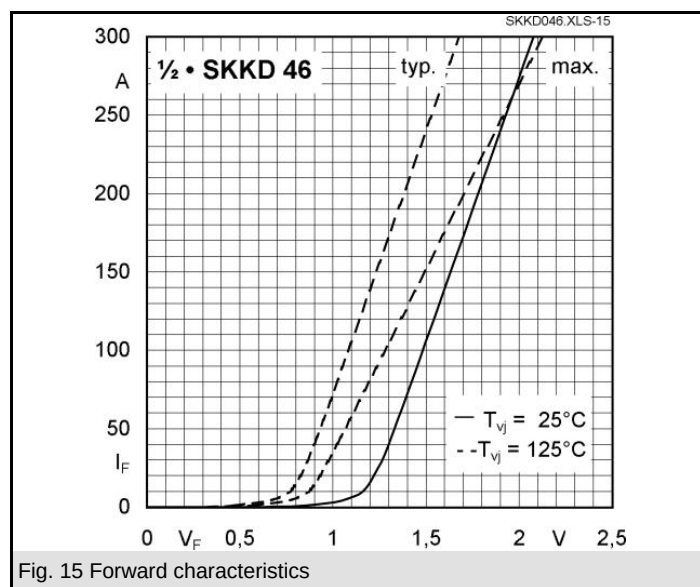
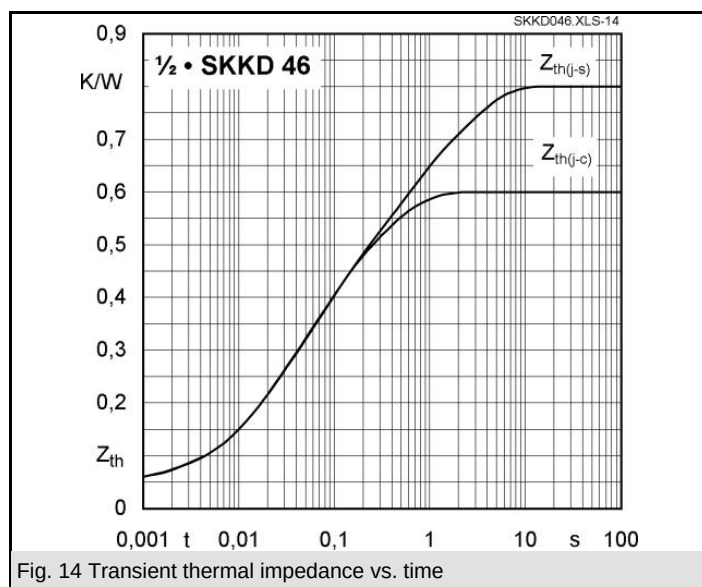
| $V_{RSM}$<br>V | $V_{RRM}$<br>V | $I_{FRMS} = 90$ A (maximum value for continuous operation)<br>$I_{FAV} = 45$ A (sin. 180; $T_c = 86$ °C) |  |  |
|----------------|----------------|----------------------------------------------------------------------------------------------------------|--|--|
| 500            | 400            | SKKD 46/04                                                                                               |  |  |
| 700            | 600            | SKKD 46/06                                                                                               |  |  |
| 900            | 800            | SKKD 46/08                                                                                               |  |  |
| 1300           | 1200           | SKKD 46/12                                                                                               |  |  |
| 1500           | 1400           | SKKD 46/14                                                                                               |  |  |
| 1700           | 1600           | SKKD 46/16                                                                                               |  |  |
| 1900           | 1800           | SKKD 46/18                                                                                               |  |  |

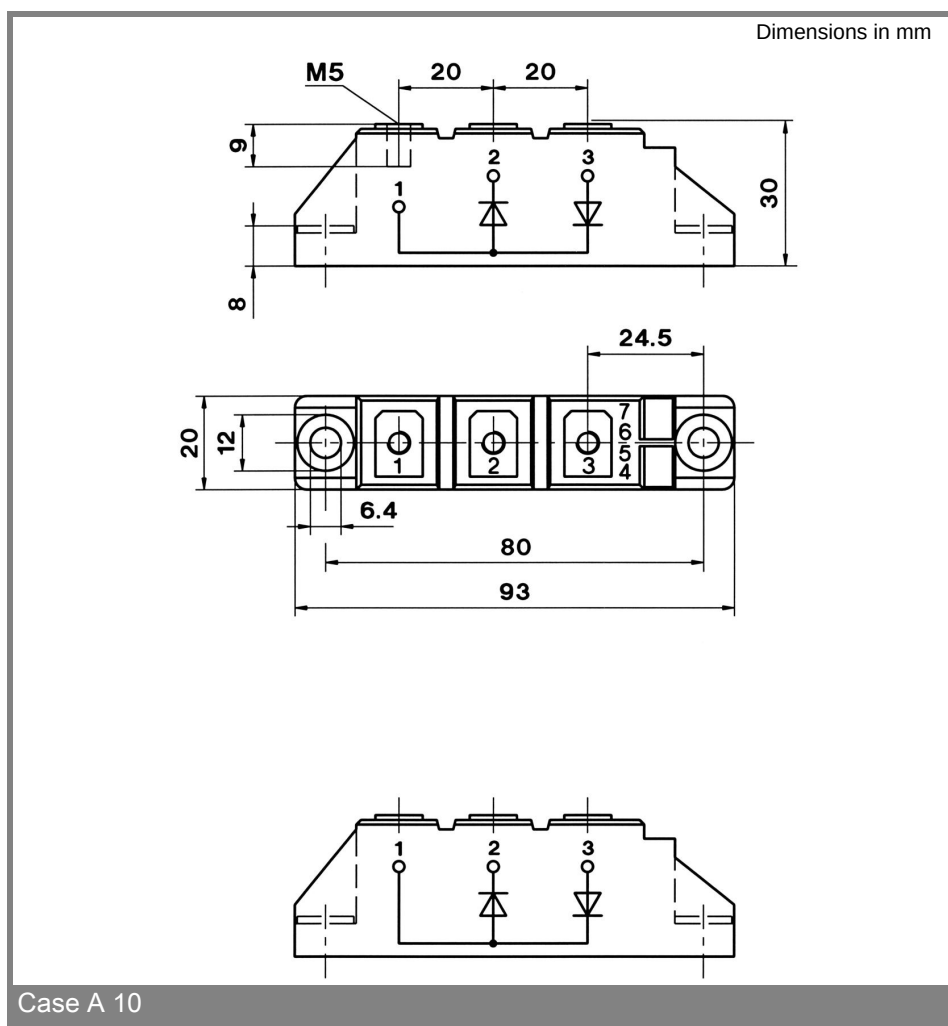
| Symbol        | Conditions                            | Values         | Units |
|---------------|---------------------------------------|----------------|-------|
| $I_{FAV}$     | sin. 180; $T_c = 85$ (100) °C         | 47 (33)        | A     |
| $I_D$         | P3/120; $T_a = 45$ °C; B2 / B6        | 50 / 60        | A     |
|               | P3/180F; $T_a = 35$ °C; B2 / B6       | 95 / 120       | A     |
| $I_{FSM}$     | $T_{vj} = 25$ °C; 10 ms               | 700            | A     |
|               | $T_{vj} = 125$ °C; 10 ms              | 600            | A     |
| $i^2t$        | $T_{vj} = 25$ °C; 8,3 ... 10 ms       | 2450           | A²s   |
|               | $T_{vj} = 125$ °C; 8,3 ... 10 ms      | 1800           | A²s   |
| $V_F$         | $T_{vj} = 25$ °C; $I_F = 250$ A       | max. 1,95      | V     |
| $V_{(TO)}$    | $T_{vj} = 125$ °C                     | max. 0,85      | V     |
| $r_T$         | $T_{vj} = 125$ °C                     | max. 5         | mΩ    |
| $I_{RD}$      | $T_{vj} = 125$ °C; $V_{RD} = V_{RRM}$ | max. 3         | mA    |
| $R_{th(j-c)}$ | per diode / per module                | 0,6 / 0,3      | K/W   |
| $R_{th(c-s)}$ | per diode / per module                | 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~    |
| $M_s$         | to heatsink                           | 5 ± 15 %       | Nm    |
| $M_t$         | to terminals                          | 3 ± 15 %       | Nm    |
| $a$           |                                       | 5 * 9,81       | m/s²  |
| $m$           | approx.                               | 95             | g     |
| Case          |                                       | A 10           |       |



SKKD







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