



## SEMIPACK® 1

### Rectifier Diode Modules

#### SKKD 46

#### Features

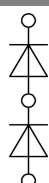
- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532

#### Typical Applications\*

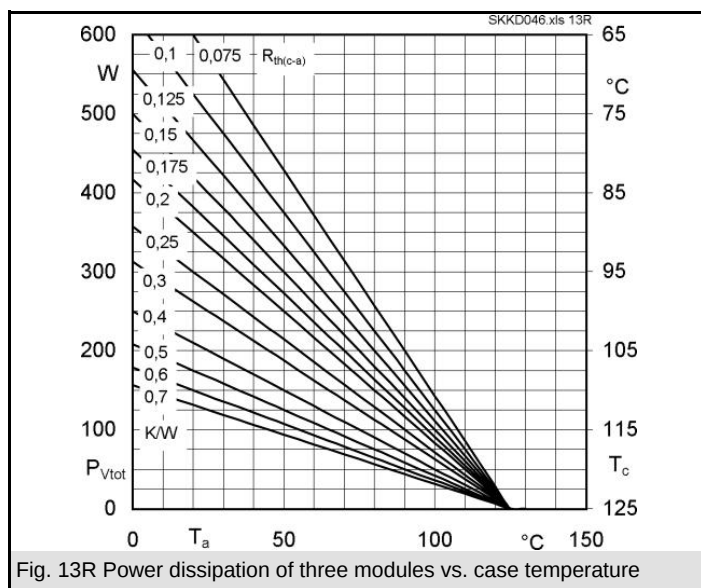
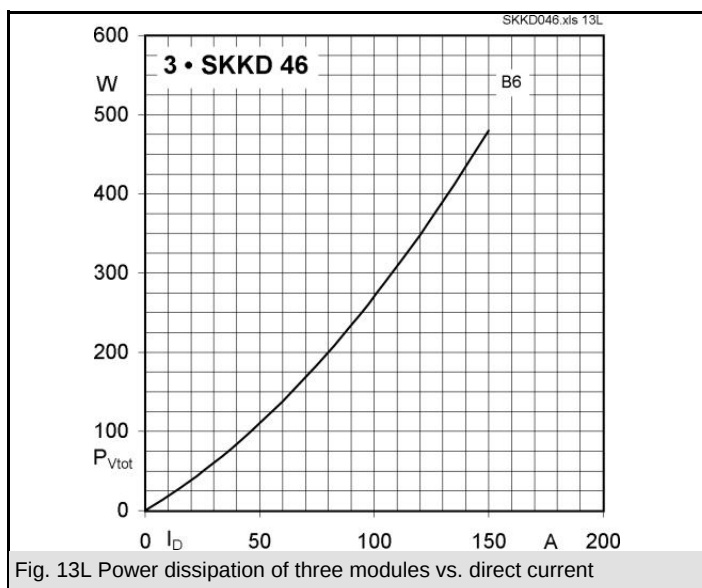
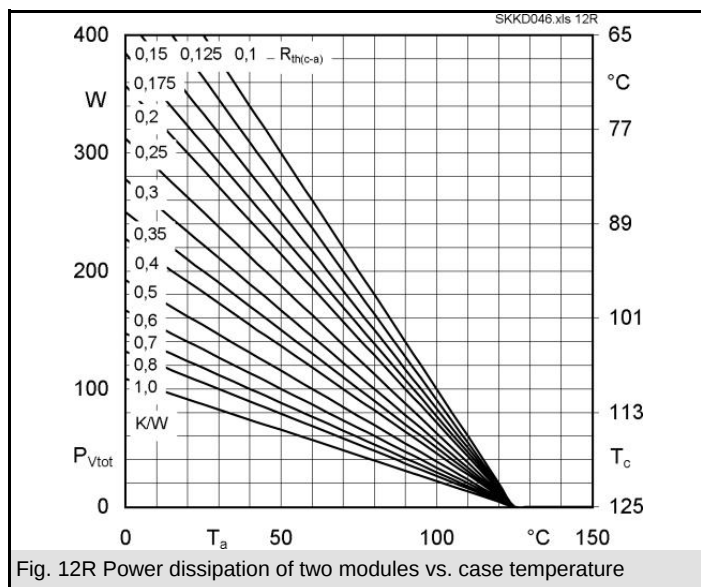
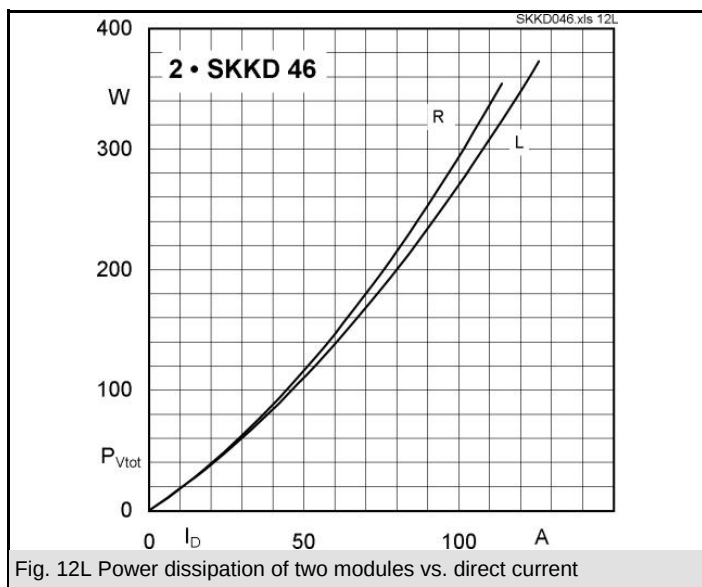
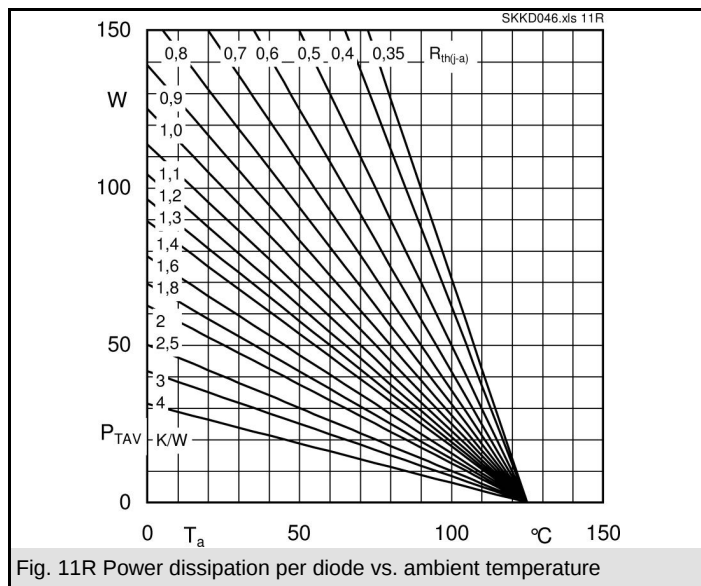
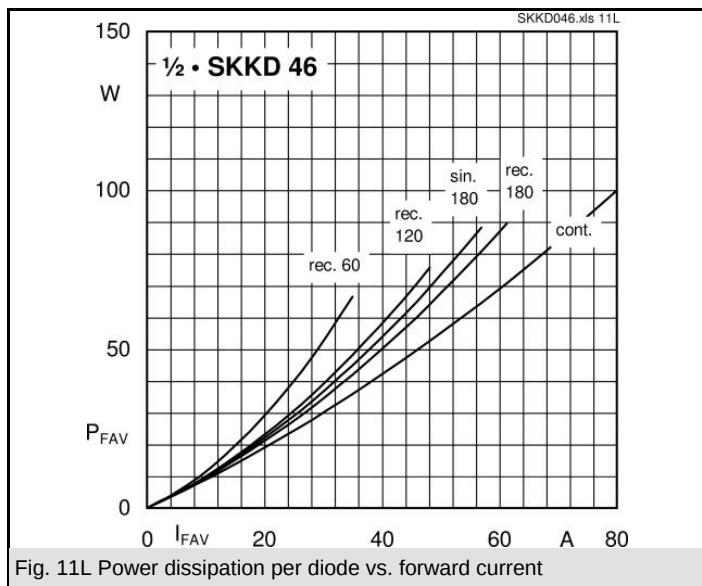
- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors

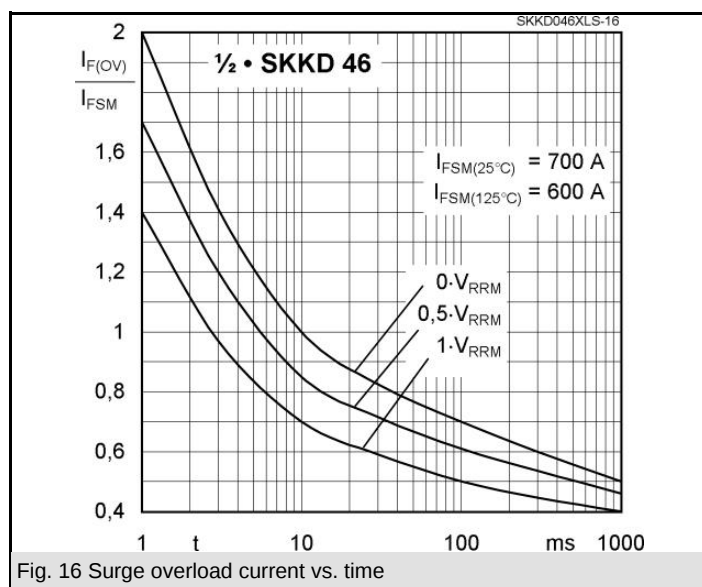
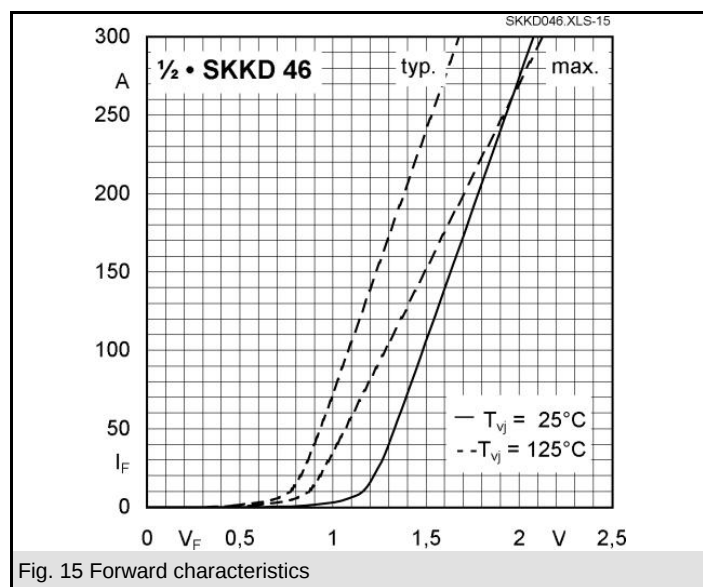
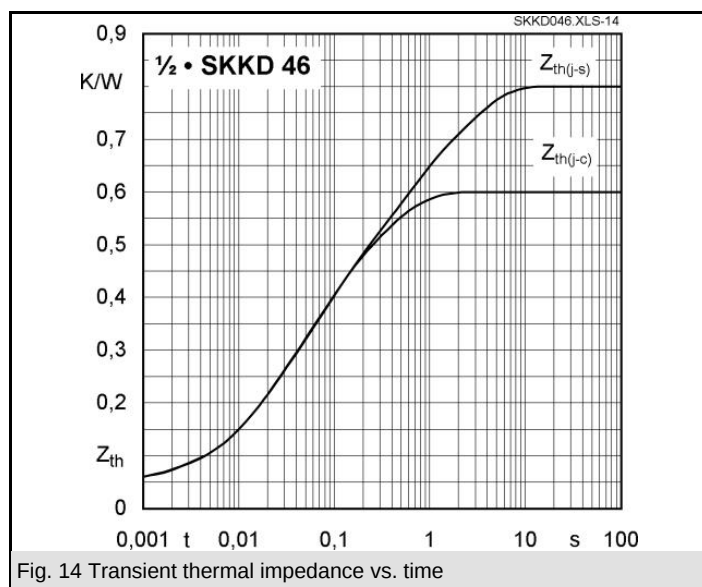
| $V_{RSM}$<br>V | $V_{RRM}$<br>V | $I_{FRMS} = 90$ A (maximum value for continuous operation)<br>$I_{FAV} = 45$ A (sin. 180; $T_c = 86$ °C) |  |  |
|----------------|----------------|----------------------------------------------------------------------------------------------------------|--|--|
| 500            | 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                                                                                               |  |  |

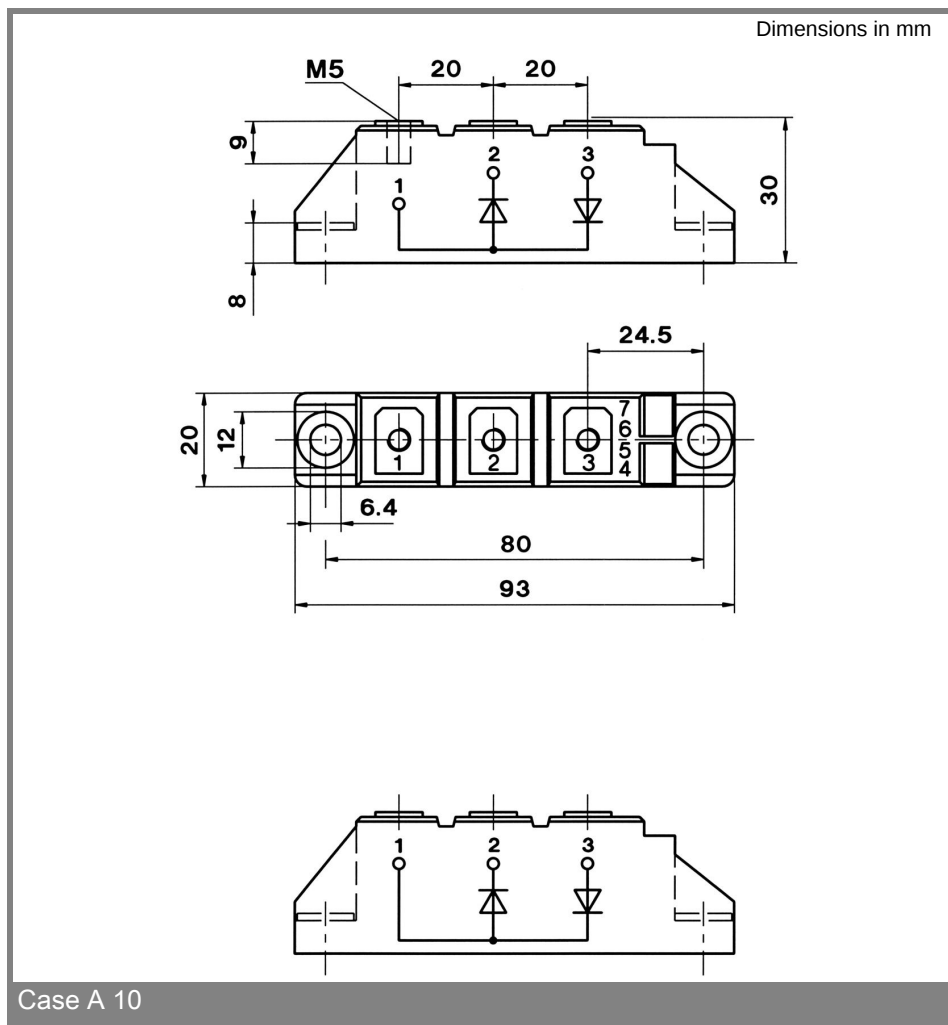
| Symbol        | Conditions                            | Values         | Units |
|---------------|---------------------------------------|----------------|-------|
| $I_{FAV}$     | sin. 180; $T_c = 85$ (100) °C         | 47 (33)        | A     |
| $I_D$         | P3/120; $T_a = 45$ °C; B2 / B6        | 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







\* 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 personal.