

# SKKT 106, SKKT 106B, SKKH 106



**SEMIPACK® 1**

## Thyristor / Diode Modules

**SKKT 106**

**SKKT106B**

**SKKH 106**

### Features

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

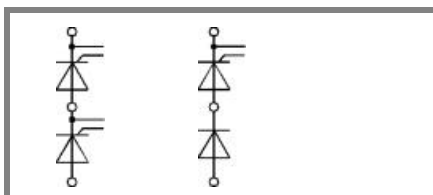
### Typical Applications

- DC motor control (e. g. for machine tools)
- AC motor soft starters
- Temperature control (e. g. for ovens, chemical processes)
- Professional light dimming (studios, theaters)

1) See the assembly instructions

| $V_{RSM}$<br>V | $V_{RRM}, V_{DRM}$<br>V | $I_{TRMS} = 180$ A (maximum value for continuous operation)<br>$I_{TAV} = 106$ A (sin. 180; $T_c = 85$ °C) |              |              |
|----------------|-------------------------|--|--------------|--------------|
| 900            | 800                     | SKKT 106/08E   | SKKT 106B08E | SKKH 106/08E |
| 1300           | 1200                    | SKKT 106/12E   | SKKT 106B12E | SKKH 106/12E |
| 1500           | 1400                    | SKKT 106/14E   | SKKT 106B14E | SKKH 106/14E |
| 1700           | 1600                    | SKKT 106/16E   | SKKT 106B16E | SKKH 106/16E |
| 1900           | 1800                    | SKKT 106/18E   | SKKT 106B18E | SKKH 106/18E |

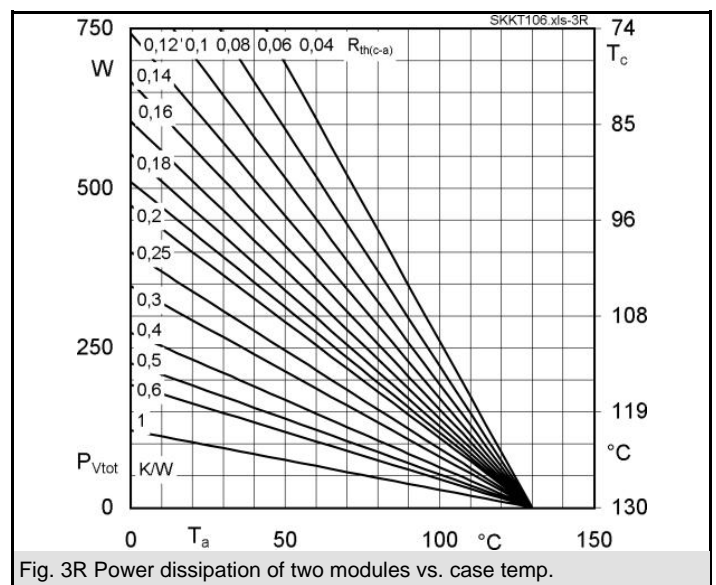
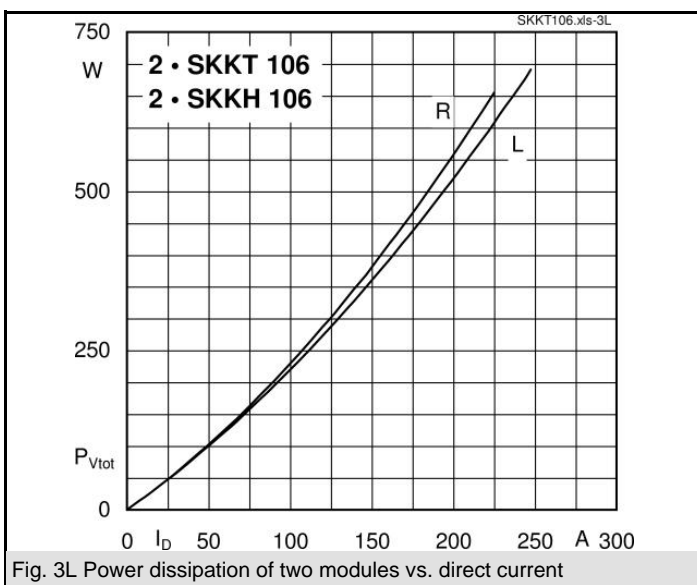
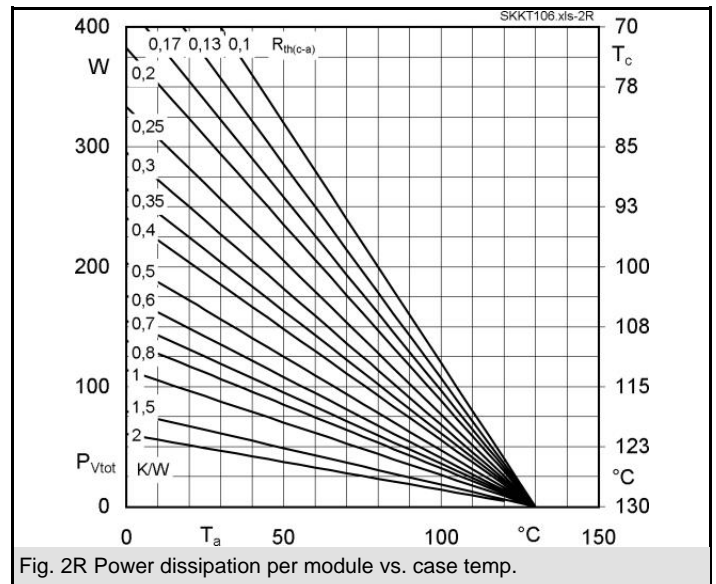
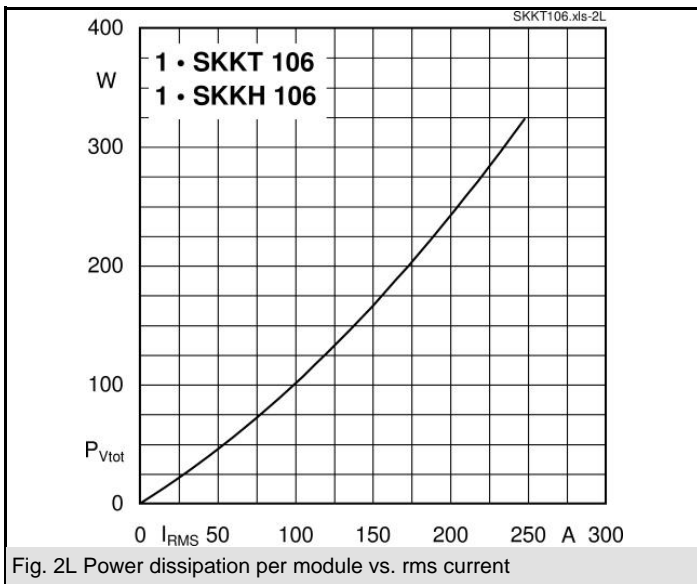
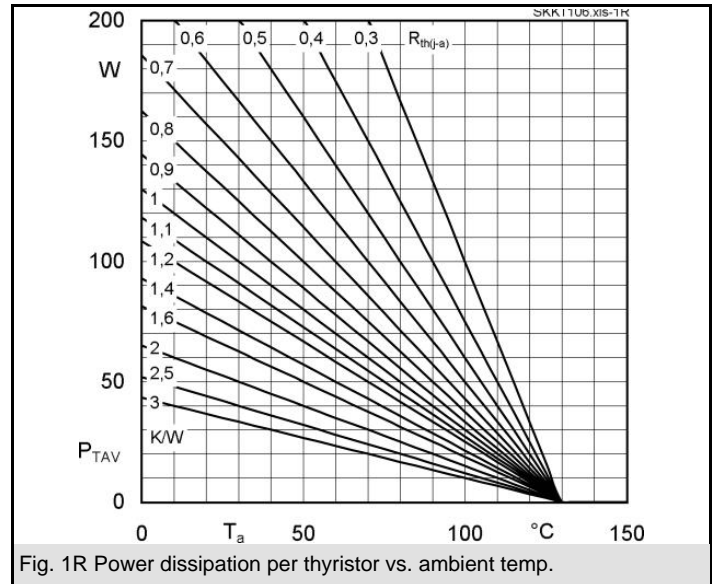
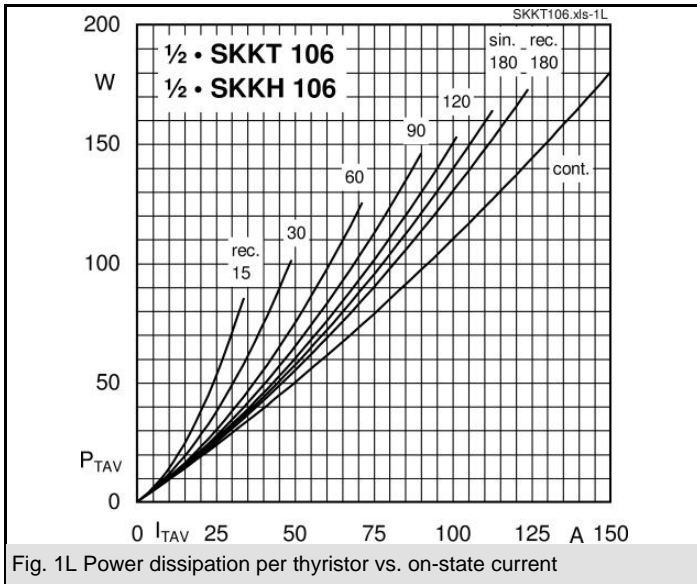
| Symbol           | Conditions  | Values                 | Units |
|------------------|---|------------------------|-------|
| $I_{TAV}$        | sin. 180; $T_c = 85$ (100) °C                                       | 106 (78)               | A     |
| $I_D$            | P3/180F; $T_a = 35$ °C; B2 / B6<br>P16/200F; $T_a = 35$ °C; B2 / B6 | 145 / 180<br>190 / 260 | A     |
| $I_{RMS}$        | P3/180F; $T_a = 35$ °C; W1 / W3                                     | 200 / 3 * 140          | A     |
| $I_{TSM}$        | $T_{vj} = 25$ °C; 10 ms<br>$T_{vj} = 130$ °C; 10 ms                 | 2250<br>1900           | A     |
| $i^2t$           | $T_{vj} = 25$ °C; 8,3 ... 10 ms<br>$T_{vj} = 130$ °C; 8,3 ... 10 ms | 25000<br>18000         | A²s   |
| $V_T$            | $T_{vj} = 25$ °C; $I_T = 300$ A                                     | max. 1,65              | V     |
| $V_{T(TO)}$      | $T_{vj} = 130$ °C   | 0,9                    | V     |
| $r_T$            | $T_{vj} = 130$ °C   | 2                      | mΩ    |
| $I_{DD}; I_{RD}$ | $T_{vj} = 130$ °C; $V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$             | max. 20                | mA    |
| $t_{gd}$         | $T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/μs                   | 1                      | μs    |
| $t_{gr}$         | $V_D = 0,67 * V_{DRM}$  | 2                      | μs    |
| $(di/dt)_{cr}$   | $T_{vj} = 130$ °C   | max. 150               | A/μs  |
| $(dv/dt)_{cr}$   | $T_{vj} = 130$ °C   | max. 1000              | V/μs  |
| $t_q$            | $T_{vj} = 130$ °C   | 100                    | μs    |
| $I_H$            | $T_{vj} = 25$ °C; typ. / max.                                       | 150 / 250              | mA    |
| $I_L$            | $T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max.                         | 300 / 600              | mA    |
| $V_{GT}$         | $T_{vj} = 25$ °C; d.c.  | min. 3                 | V     |
| $I_{GT}$         | $T_{vj} = 25$ °C; d.c.  | min. 150               | mA    |
| $V_{GD}$         | $T_{vj} = 130$ °C; d.c.   | max. 0,25              | V     |
| $I_{GD}$         | $T_{vj} = 130$ °C; d.c.   | max. 6                 | mA    |
| $R_{th(j-c)}$    | cont.; per thyristor / per module                                   | 0,28 / 0,14            | K/W   |
| $R_{th(j-c)}$    | sin. 180; per thyristor / per module                                | 0,3 / 0,15             | K/W   |
| $R_{th(j-c)}$    | rec. 120; per thyristor / per module                                | 0,32 / 0,16            | K/W   |
| $R_{th(c-s)}$    | per thyristor / per module  | 0,2 / 0,1              | K/W   |
| $T_{vj}$         |   | - 40 ... + 130         | °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 % <sup>1)</sup> | Nm    |
| $M_t$            | to terminal   | 3 ± 15 %               | Nm    |
| $a$              |   | 5 * 9,81               | m/s²  |
| $m$              | approx.   | 95                     | g     |
| Case             | SKKT  | A 46                   |       |
|                  | SKKT ...B   | A 48                   |       |
|                  | SKKH  | A 47                   |       |



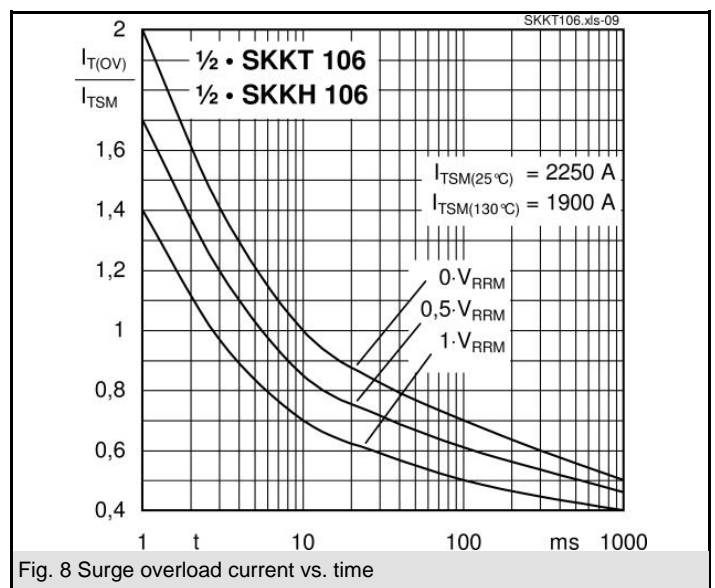
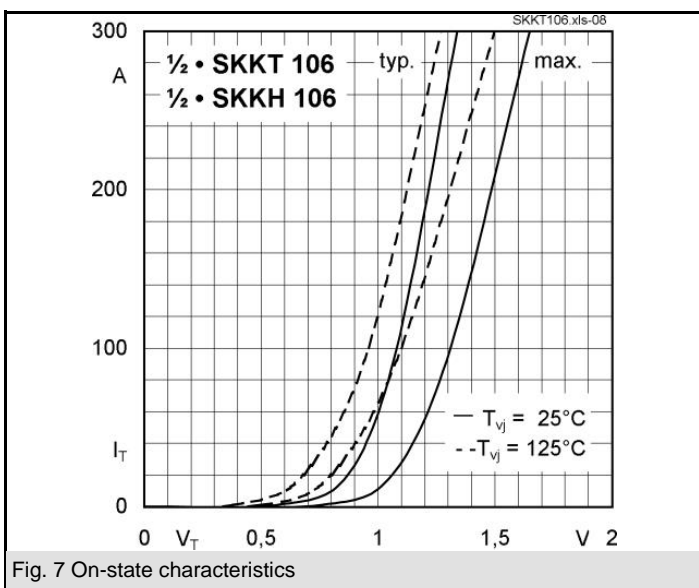
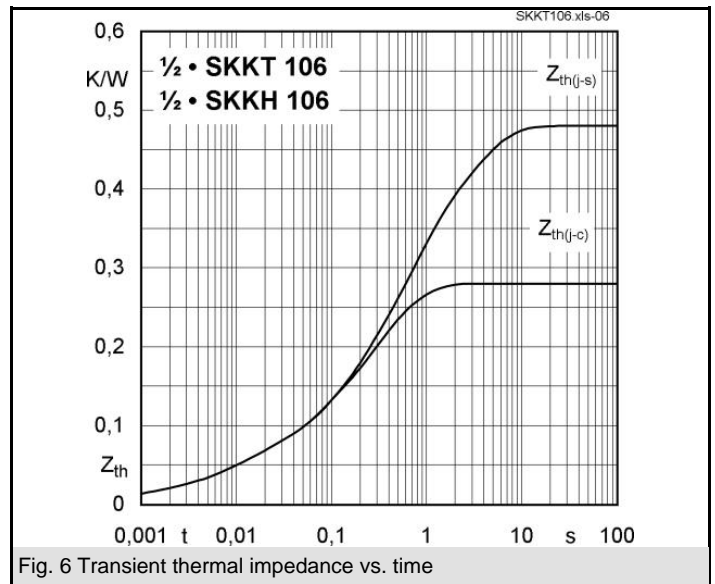
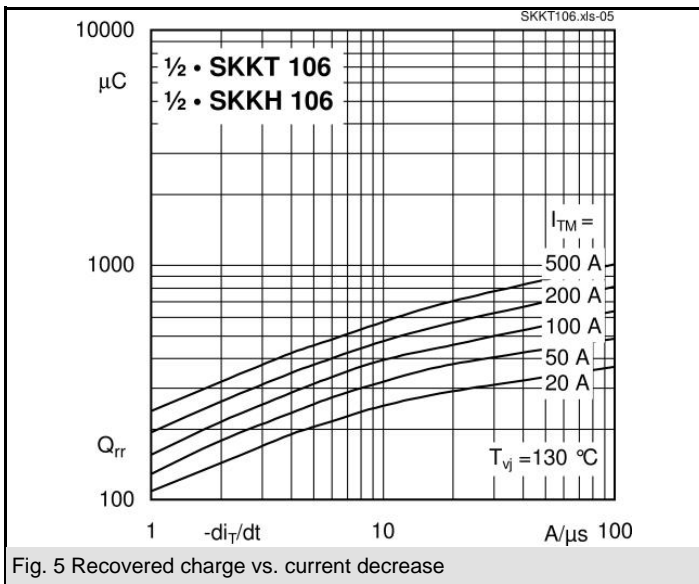
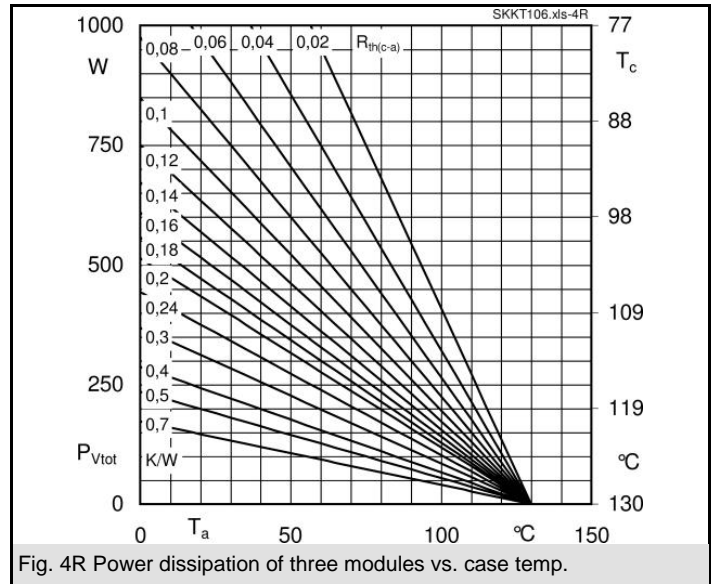
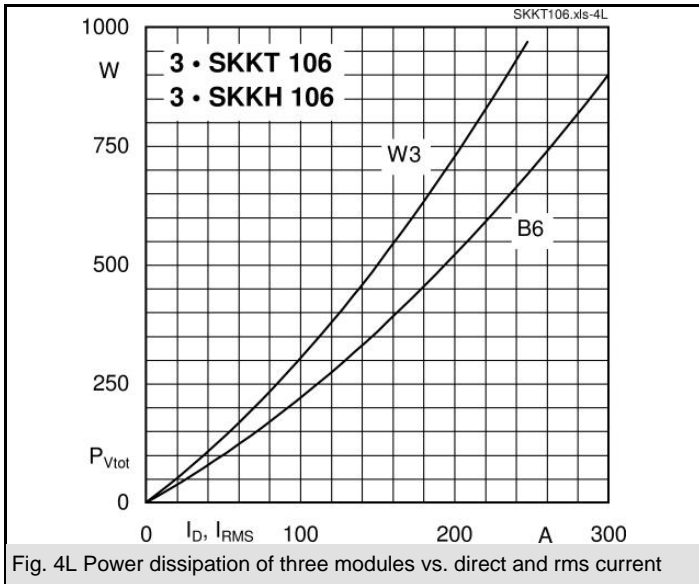
**SKKT**

**SKKH**

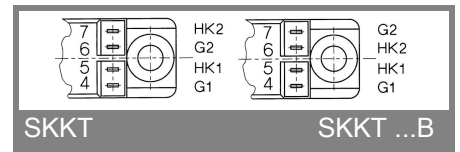
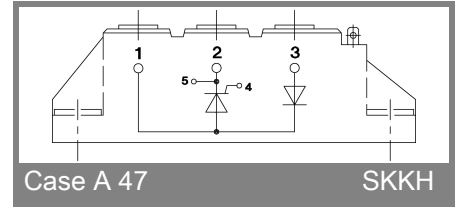
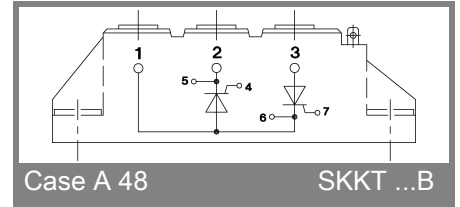
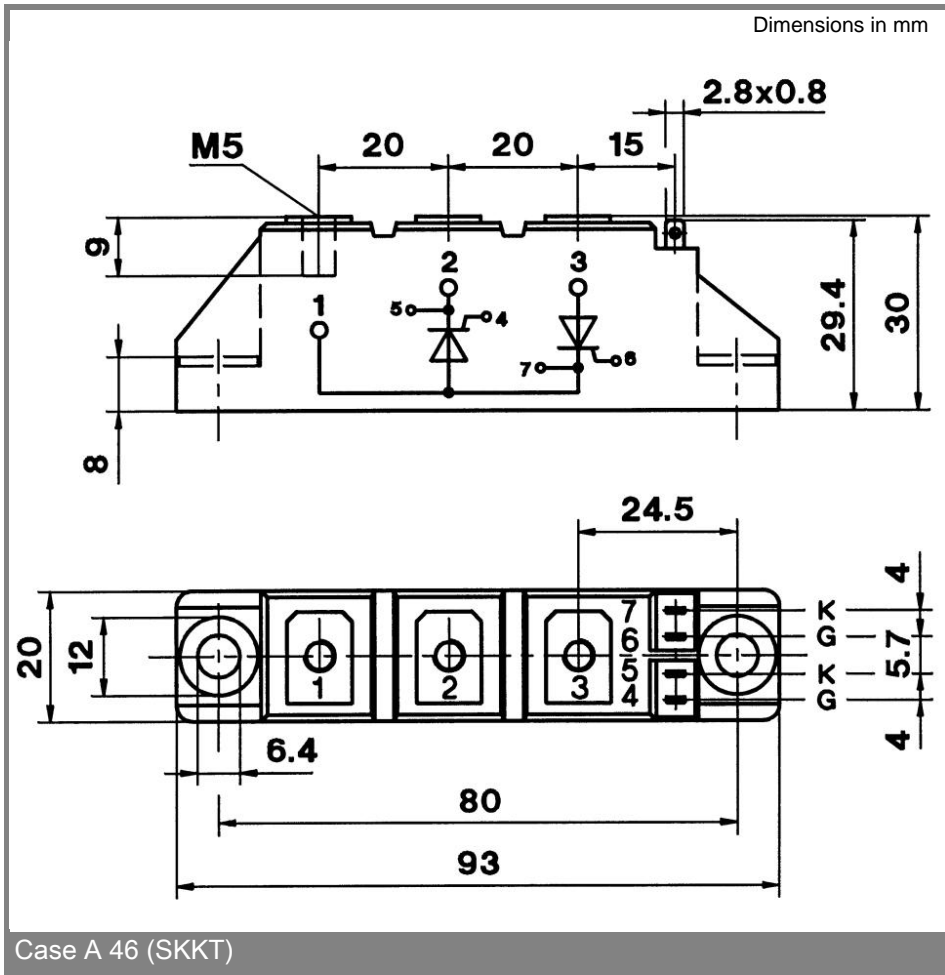
# SKKT 106, SKKT 106B, SKKH 106



# SKKT 106, SKKT 106B, SKKH 106



# SKKT 106, SKKT 106B, SKKH 106



This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.