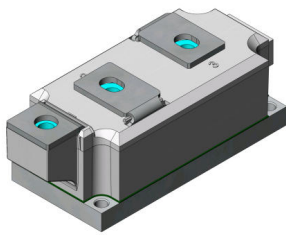


# SKKT 570, SKKH 570



**SEMIPACK® 5**

## Thyristor / Diode Modules

### SKKT 570, SKKH 570

#### Target Data

#### Features

- Heat transfer through aluminium nitride ceramic insulated metal baseplate
- Hard soldered joints for high reliability
- UL recognition pending

#### Typical Applications

- AC motor softstarters
- Input converters for AC inverter drives
- DC motor control (e.g. for machine tools)
- Temperature control (e.g. for ovens, chemical, processes)
- Professionals light dimming (studios, theaters)

| $V_{RSM}$<br>V | $V_{RRM}, V_{DRM}$<br>V | $I_{TRMS} = 1000$ A (maximum value for continuous operation)<br>$I_{TAV} = 570$ A (sin. 180; $T_c = 85$ °C) |               |  |
|----------------|-------------------------|-------------------------------------------------------------------------------------------------------------|---------------|--|
| 1300           | 1200                    | SKKT 570/12 E                                                                                               | SKKH 570/12 E |  |
| 1700           | 1600                    | SKKT 570/16 E                                                                                               | SKKH 570/16 E |  |
| 1900           | 1800                    | SKKT 570/18 E                                                                                               | SKKH 570/18 E |  |

| Symbol           | Conditions                                                          | Values                 | Units      |
|------------------|---------------------------------------------------------------------|------------------------|------------|
| $I_{TAV}$        | sin. 180; $T_c = 85$ (100) °C;                                      | 570 (435)              | A          |
| $I_{TSM}$        | $T_{vj} = 25$ °C; 10 ms<br>$T_{vj} = 135$ °C; 10 ms                 | 19000<br>15500         | A<br>A     |
| $i^2t$           | $T_{vj} = 25$ °C; 8,3 ... 10 ms<br>$T_{vj} = 135$ °C; 8,3 ... 10 ms | 1805000<br>1201250     | A²s<br>A²s |
| $V_T$            | $T_{vj} = 25$ °C; $I_T = 1700$ A                                    | max. 1,44              | V          |
| $V_{T(TO)}$      | $T_{vj} = 135$ °C                                                   | max. 0,78              | V          |
| $r_T$            | $T_{vj} = 135$ °C                                                   | max. 0,32              | mΩ         |
| $I_{DD}, I_{RD}$ | $T_{vj} = 135$ °C; $V_{RD} = V_{RRM}, V_{DD} = V_{DRM}$             | max. 200               | mA         |
| $t_{gd}$         | $T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/μs                   | 1                      | μs         |
| $t_{gr}$         | $V_D = 0,67 \cdot V_{DRM}$                                          | 2                      | μs         |
| $(di/dt)_{cr}$   | $T_{vj} = 135$ °C                                                   | max. 250               | A/μs       |
| $(dv/dt)_{cr}$   | $T_{vj} = 135$ °C                                                   | max. 1000              | V/μs       |
| $t_q$            | $T_{vj} = 135$ °C                                                   |                        | μs         |
| $I_H$            | $T_{vj} = 25$ °C; typ. / max.                                       | 150 / 500              | mA         |
| $I_L$            | $T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max.                         | 300 / 2000             | mA         |
| $V_{GT}$         | $T_{vj} = 25$ °C; d.c.                                              | min. 3                 | V          |
| $I_{GT}$         | $T_{vj} = 25$ °C; d.c.                                              | min. 200               | mA         |
| $V_{GD}$         | $T_{vj} = 135$ °C; d.c.                                             | max. 0,25              | V          |
| $I_{GD}$         | $T_{vj} = 135$ °C; d.c.                                             | max. 10                | mA         |
| $R_{th(j-c)}$    | cont.; per thyristor / per module                                   | 0,069 / 0,034          | K/W        |
| $R_{th(j-c)}$    | sin. 180°; per thyristor / per module                               | 0,072 / 0,036          | K/W        |
| $R_{th(j-c)}$    | rec. 120°; per thyristor / per module                               | 0,077 / 0,038          | K/W        |
| $R_{th(c-s)}$    | per thyristor / per module                                          | 0,02 / 0,01            | K/W        |
| $T_{vj}$         |                                                                     | - 40 ... + 135         | °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 terminals                                                        | 12 ± 15% <sup>2)</sup> | Nm         |
| $a$              |                                                                     | 5 * 9,81               | m/s²       |
| $m$              | approx.                                                             | 1400                   | g          |
| Case             | SKKT<br>SKKH                                                        | A 60b<br>A 66b         |            |



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