## **SKKT 132, SKKH 132**



# SEMIPACK<sup>®</sup> 2

### Thyristor / Diode Modules

SKKT 132 SKKH 132

#### **Features**

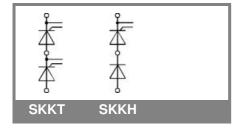
- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63532

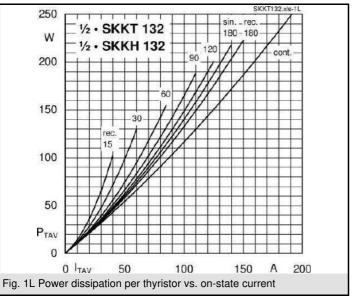
### **Typical Applications\***

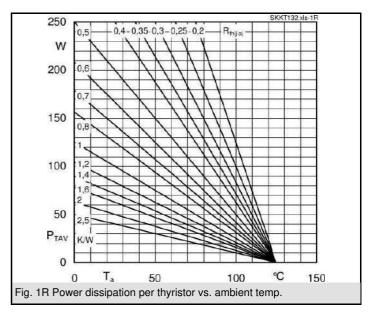
- DC motor control (e. g. for machine tools)
- Temperature control (e. g. for ovens, chemical processes)
- Professional light dimming (studios, theaters)
- 1) See the assembly instructions

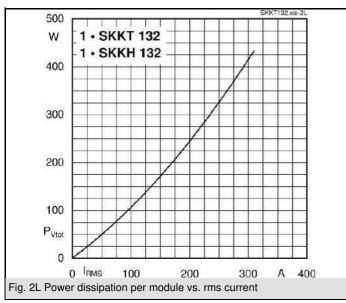
| $V_{RSM}$ | $V_{RRM}, V_{DRM}$ | I <sub>TRMS</sub> = 220 A (maximum value for continuous operation) |              |  |
|-----------|--------------------|--|--------------|--|
| V         | V                  | I <sub>TAV</sub> = 130 A (sin. 180; T <sub>c</sub> = 87 °C)        |              |  |
| 900       | 800                | SKKT 132/08E   | SKKH 132/08E |  |
| 1300      | 1200               | SKKT 132/12E   | SKKH 132/12E |  |
| 1500      | 1400               | SKKT 132/14E   | SKKH 132/14E |  |
| 1700      | 1600               | SKKT 132/16E   | SKKH 132/16E |  |
| 1900      | 1800               | SKKT 132/18E   | SKKH 132/18E |  |

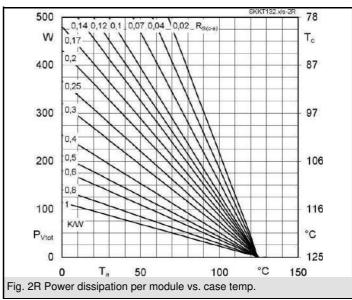
| Symbol                | Conditions   | Values                 | Units |
|-----------------------|--|------------------------|-------|
| I <sub>TAV</sub>      | sin. 180; T <sub>c</sub> = 85 (100) °C;  | 137 (96 )              | Α     |
| I <sub>D</sub>        | P3/180; T <sub>a</sub> = 45 °C; B2 / B6  | 77 / 100               | Α     |
| _                     | P3/180F; T <sub>a</sub> = 35 °C; B2 / B6                                       | 170 /200               | Α     |
| I <sub>RMS</sub>      | P3/180F; T <sub>a</sub> = 35 °C; W1 / W3                                       | 240 / 3 * 163          | Α     |
| I <sub>TSM</sub>      | T <sub>vi</sub> = 25 °C; 10 ms   | 4700                   | Α     |
|                       | T <sub>vi</sub> = 125 °C; 10 ms  | 4000                   | Α     |
| i²t                   | T <sub>vj</sub> = 25 °C; 8,3 10 ms   | 110000                 | A²s   |
|                       | T <sub>vj</sub> = 125 °C; 8,3 10 ms  | 80000                  | A²s   |
| V <sub>T</sub>        | T <sub>vi</sub> = 25 °C; I <sub>T</sub> = 500 A                                | max. 1,8               | V     |
| $V_{T(TO)}$           | T <sub>vi</sub> = 125 °C   | max. 1                 | V     |
| r <sub>T</sub>        | T <sub>vj</sub> = 125 °C   | max. 1,6               | mΩ    |
| $I_{DD}$ ; $I_{RD}$   | $T_{vj}$ = 125 °C; $V_{RD}$ = $V_{RRM}$ ; $V_{DD}$ = $V_{DRM}$                 | max. 40                | mA    |
| t <sub>gd</sub>       | $T_{vj} = 25 \text{ °C}; I_G = 1 \text{ A}; di_G/dt = 1 \text{ A/}\mu\text{s}$ | 1                      | μs    |
| t <sub>gr</sub>       | $V_{D} = 0.67 * V_{DRM}$   | 2                      | μs    |
| (di/dt) <sub>cr</sub> | T <sub>vi</sub> = 125 °C   | max. 200               | A/µs  |
| (dv/dt) <sub>cr</sub> | T <sub>vi</sub> = 125 °C   | max. 1000              | V/µs  |
| t <sub>q</sub>        | $T_{vi}^{y} = 125 ^{\circ}\text{C}$  | 50 150                 | μs    |
| I <sub>H</sub>        | T <sub>vi</sub> = 25 °C; typ. / max.   | 150 / 400              | mA    |
| $I_{L}$               | $T_{vj}$ = 25 °C; R <sub>G</sub> = 33 Ω; typ. / max.                           | 300 / 1000             | mA    |
| V <sub>GT</sub>       | T <sub>vi</sub> = 25 °C; d.c.  | min. 2                 | V     |
| I <sub>GT</sub>       | $T_{vi} = 25 ^{\circ}\text{C}; \text{d.c.}$                                    | min. 150               | mA    |
| $V_{GD}$              | $T_{vj} = 125 ^{\circ}\text{C}; \text{d.c.}$                                   | max. 0,25              | V     |
| $I_{GD}$              | $T_{vj} = 125 ^{\circ}\text{C}; \text{d.c.}$                                   | max. 10                | mA    |
| R <sub>th(j-c)</sub>  | cont.; per thyristor / per module  | 0,18 / 0,09            | K/W   |
| R <sub>th(j-c)</sub>  | sin. 180; per thyristor / per module   | 0,19 / 0,095           | K/W   |
| R <sub>th(j-c)</sub>  | rec. 120; per thyristor / per module   | 0,21 / 0,105           | K/W   |
| $R_{th(c-s)}$         | per thyristor / per module   | 0,1 / 0,05             | K/W   |
| $T_{vj}$              |  | - 40 <b>+</b> 125      | °C    |
| $T_{stg}$             |  | - 40 <b>+</b> 125      | °C    |
| V <sub>isol</sub>     | 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  | 5 ± 15 %               | Nm    |
| а                     |  | 5 * 9,81               | m/s²  |
| m                     | approx.  | 165                    | g     |
| Case                  | SKKT   | A 21                   |       |
|                       | SKKH   | A 22                   |       |
|                       |  |                        |       |
|                       |  |                        |       |

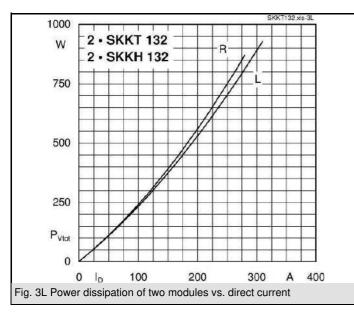


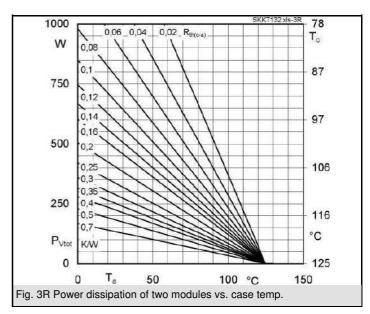




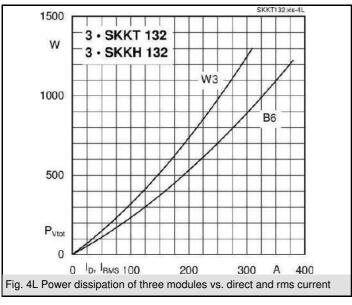


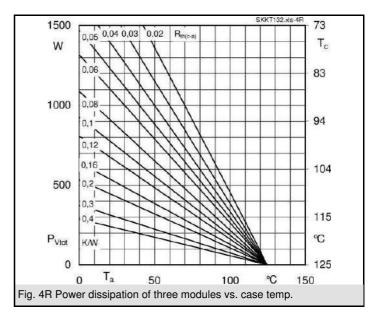


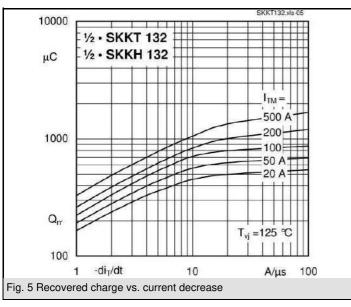


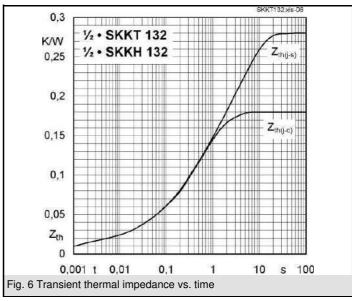


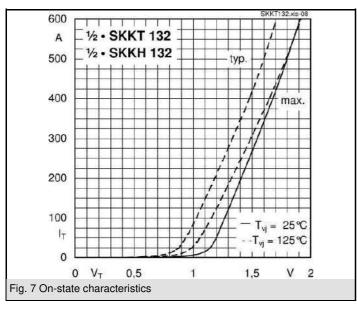
### **SKKT 132, SKKH 132**

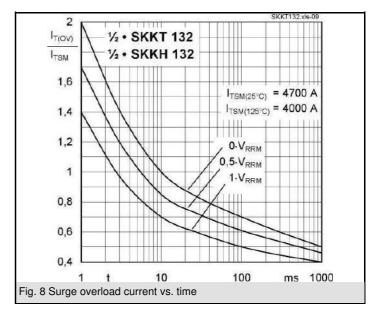


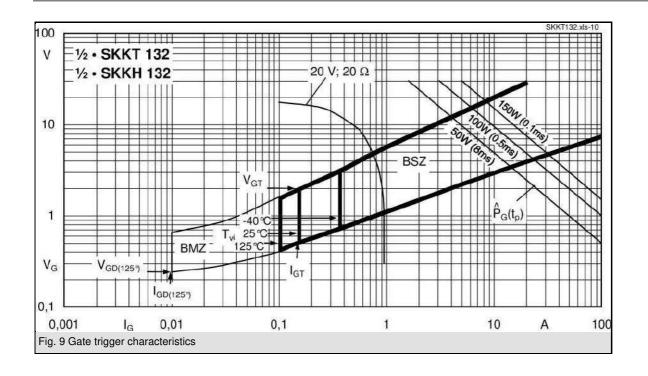


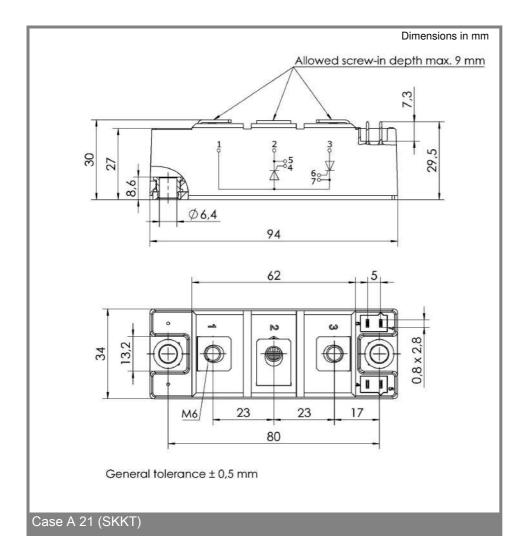


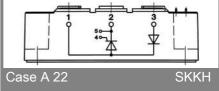












### SKKT 132, SKKH 132

This is an electrostatic discharge sensitive device (ESDS) due to international standard IEC 61340.

#### \*IMPORTANT INFORMATION AND WARNINGS

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