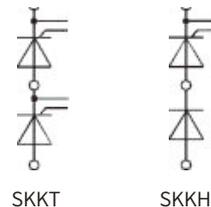


Features

- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability

Typical Applications

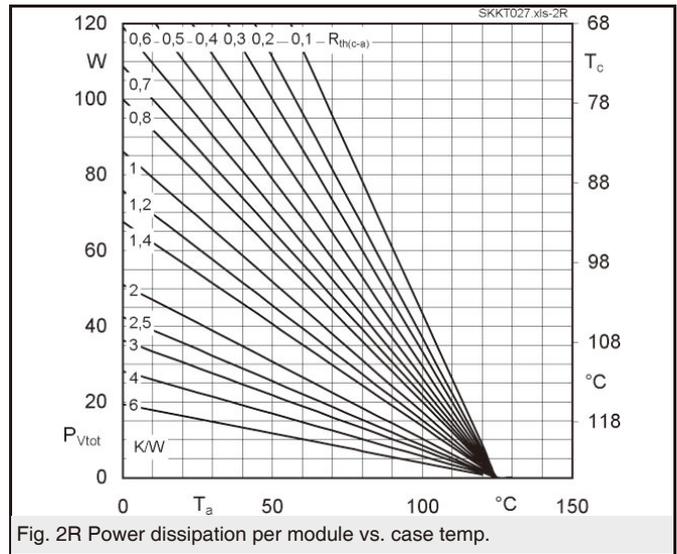
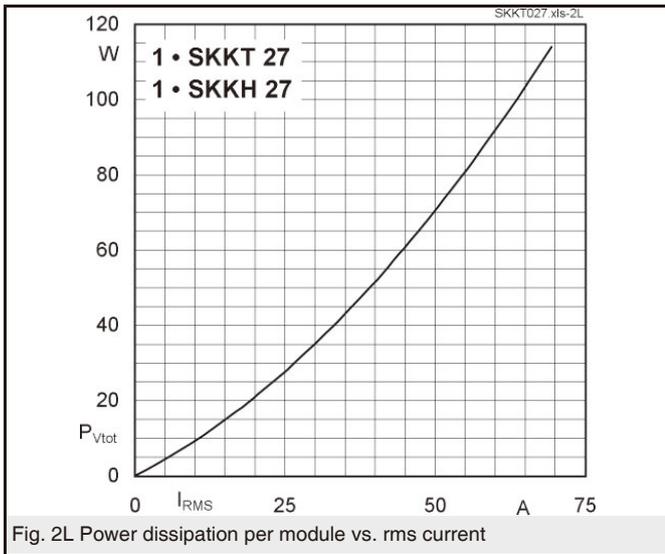
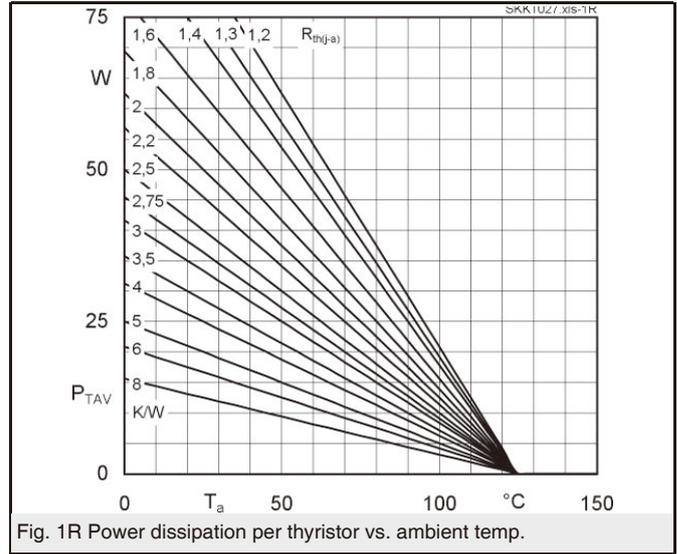
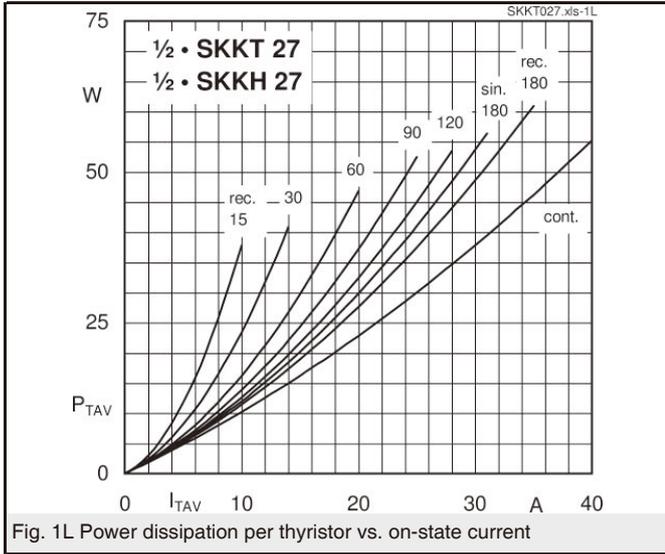
- DC motor control (e. g. for machine tools)
- AC motor soft starters
- Temperature control (e.g. for ovens, chemical processes)
- Professional light dimming (studios, theaters)



| V_{RSM} V | $V_{RRM}; V_{DRM}$ V | $I_{TRMS} = 50$ A (maximum value for continuous operation) $I_{TAV} = 27$ A (sin. 180; $T_c = 82$ °C) | | |
|----------------|-------------------------|--|-------------|-------------|
| 900 | 800 | SKKT 27/08E | SKKT 27B08E | SKKH 27/08E |
| 1300 | 1200 | SKKT 27/12E | SKKT 27B12E | SKKH 27/12E |
| 1500 | 1400 | SKKT 27/14E | SKKT 27B14E | SKKH 27/14E |
| 1700 | 1600 | SKKT 27/16E | SKKT 27B16E | SKKH 27/16E |
| 1900 | 1800 | | | SKKH 27/18E |

| Symbol | Conditions | Values | Units |
|------------------|---|----------------|------------------|
| I_{TAV} | sin. 180; $T_c = 85$ (100) °C; | 25 (18) | A |
| I_D | P3/180; $T_a = 45$ °C; B2 / B6 | 38 / 50 | A |
| | P3/180F; $T_a = 35$ °C; B2 / B6 | 60 / 77 | A |
| I_{RMS} | P3/180; $T_a = 45$ °C; W1 / W3 | 52 / 3 x 37 | A |
| I_{TSM} | $T_{vj} = 25$ °C; 10 ms | 550 | A |
| | $T_{vj} = 125$ °C; 10 ms | 480 | A |
| i^2t | $T_{vj} = 25$ °C; 8,3 ... 10 ms | 1500 | A ² s |
| | $T_{vj} = 125$ °C; 8,3 ... 10 ms | 1150 | A ² s |
| V_T | $T_{vj} = 25$ °C; $I_T = 75$ A | max. 1,8 | V |
| $V_{T(TO)}$ | $T_{vj} = 125$ °C | max. 0,9 | V |
| r_T | $T_{vj} = 125$ °C | max. 12 | mΩ |
| $I_{DD}; I_{RD}$ | $T_{vj} = 125$ °C; $V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$ | max. 10 | mA |
| t_{gd} | $T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/μs | 1 | μs |
| t_{gr} | $V_D = 0,67 * V_{DRM}$ | 1 | μs |
| $(di/dt)_{cr}$ | $T_{vj} = 125$ °C | max. 150 | A/μs |
| $(dv/dt)_{cr}$ | $T_{vj} = 125$ °C | max. 1000 | V/μs |
| t_q | $T_{vj} = 125$ °C | 80 | μs |
| I_H | $T_{vj} = 25$ °C; typ. / max. | 100 / 200 | mA |
| I_L | $T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max. | 250 / 400 | 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} | $T_{vj} = 125$ °C; d.c. | max. 0,25 | V |
| I_{GD} | $T_{vj} = 125$ °C; d.c. | max. 5 | mA |
| $R_{th(j-c)}$ | cont.; per thyristor / per module | 0,9 / 0,45 | K/W |
| $R_{th(j-c)}$ | sin. 180; per thyristor / per module | 0,95 / 0,48 | K/W |
| $R_{th(j-c)}$ | rec. 120; per thyristor / per module | 1 / 0,5 | K/W |
| $R_{th(c-s)}$ | per thyristor / 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 | $V \sim$ |
| M_s | to heatsink | $5 \pm 15 \%^{1)}$ | Nm |
| M_t | to terminals | $3 \pm 15 \%$ | Nm |
| a | | $5 * 9,81$ | m/s^2 |
| m | approx. | 95 | g |
| Case | SKKT | A 46 | |
| | SKKT ...B | A 48 | |
| | SKKH | A 47 | |



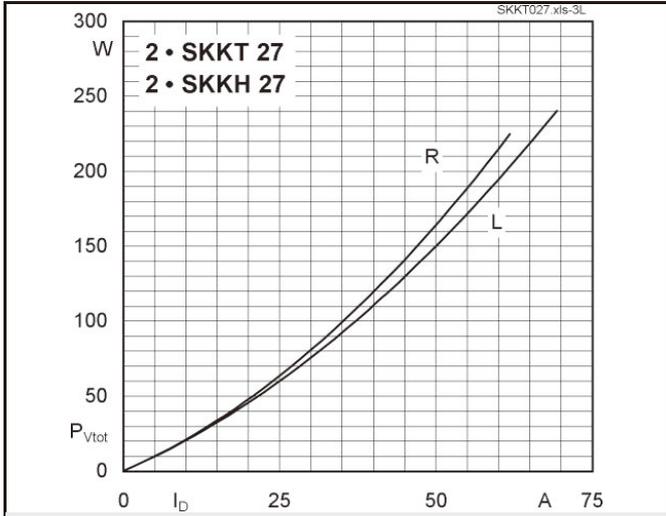


Fig. 3L Power dissipation of two modules vs. direct current

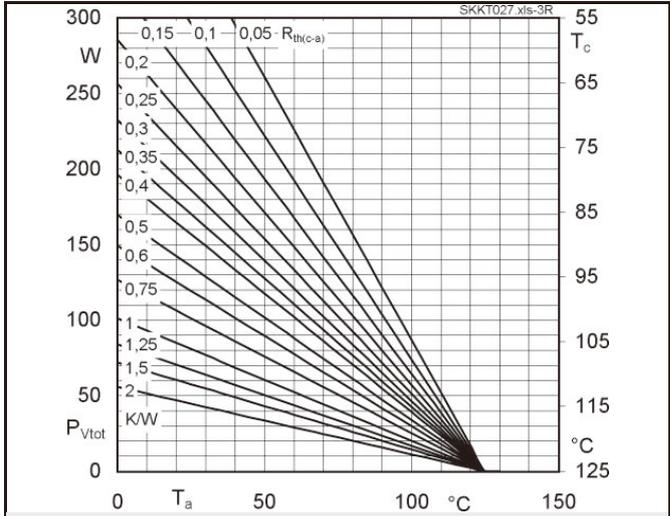


Fig. 3R Power dissipation of two modules vs. case temp.

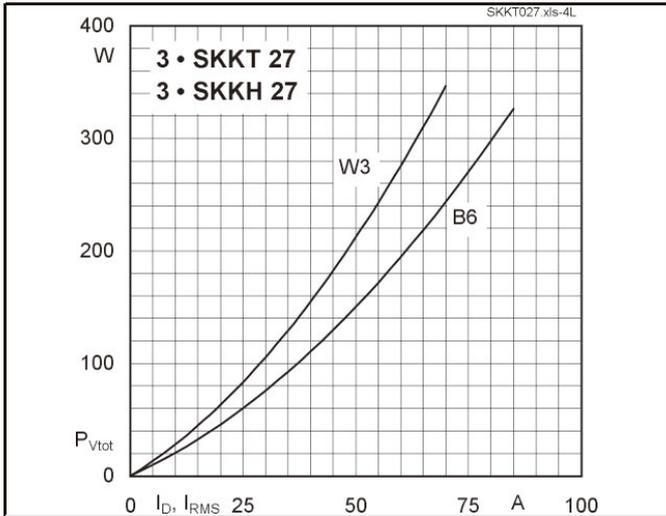


Fig. 4L Power dissipation of three modules vs. direct and rms current

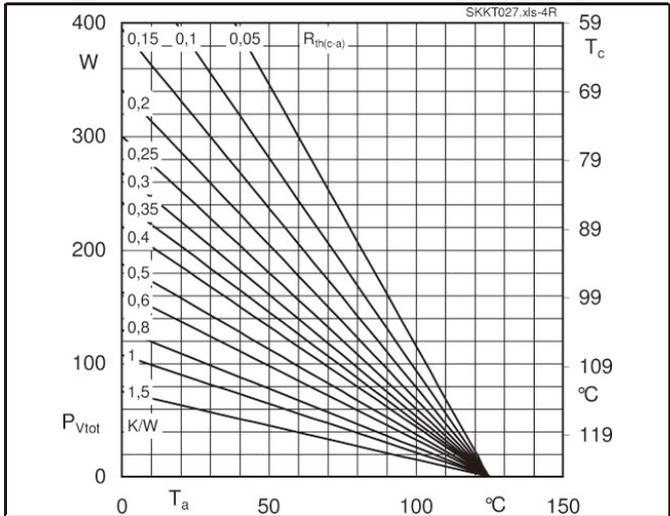


Fig. 4R Power dissipation of three modules vs. case temp.

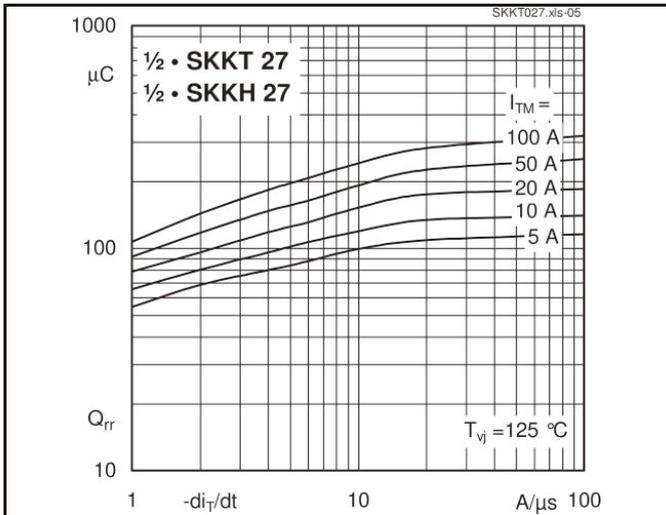


Fig. 5 Recovered charge vs. current decrease

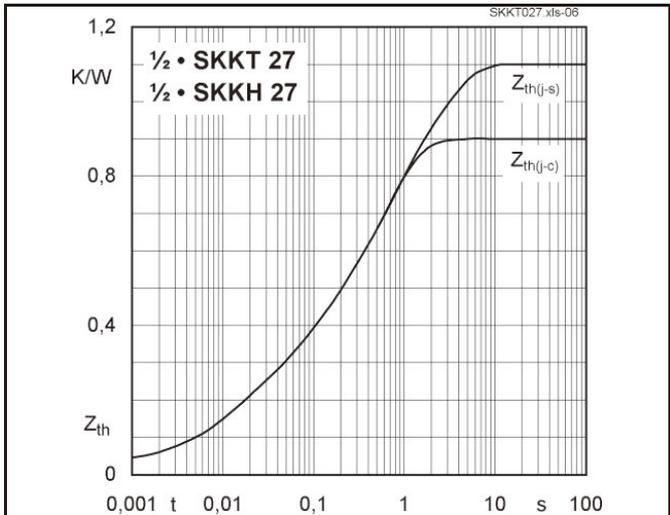


Fig. 6 Transient thermal impedance vs. time

