

SKKT 72, SKKH 72, SKKT 72B



SEMIPACK[®] 1

Thyristor / Diode Modules

SKKT 72

SKKH 72

SKKT 72B

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} V | V_{RRM}, V_{DRM} V | $I_{TRMS} = 125$ A (maximum value for continuous operation) | | |
|----------------|-------------------------|---|-------------|---------------|
| | | $I_{TAV} = 70$ A (sin. 180; $T_c = 85$ °C) | | |
| 900 | 800 | SKKT 72/08E | SKKT 72B08E | SKKH 72/08E |
| 1300 | 1200 | SKKT 72/12E | SKKT 72B12E | SKKH 72/12E |
| 1500 | 1400 | SKKT 72/14E | SKKT 72B14E | SKKH 72/14E |
| 1700 | 1600 | SKKT 72/16E | SKKT 72B16E | SKKH 72/16E |
| 1900 | 1800 | SKKT 72/18E | SKKT 72B18E | SKKH 72/18E |
| 2100 | 2000 | SKKT 72/20EH4 | | SKKH 72/20EH4 |
| 2300 | 2200 | SKKT 72/22EH4 | | SKKH 72/22EH4 |

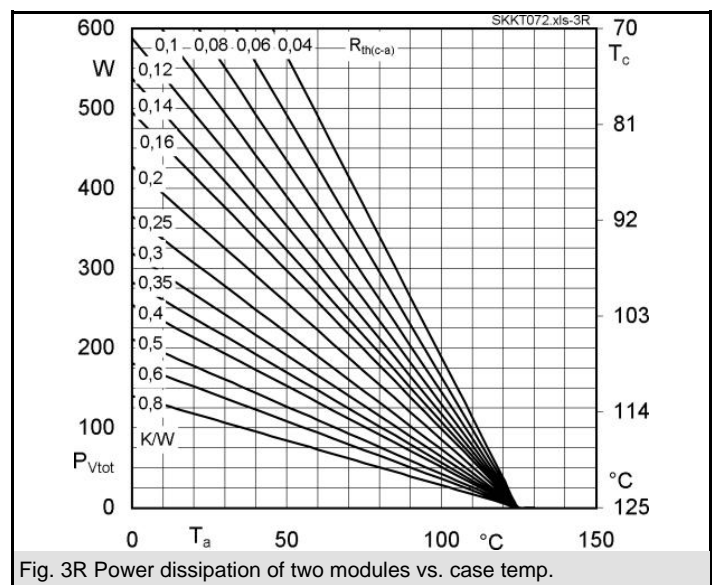
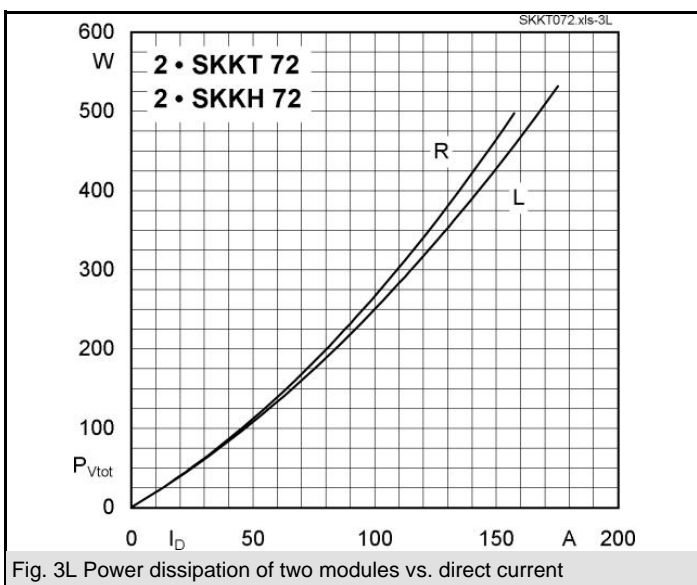
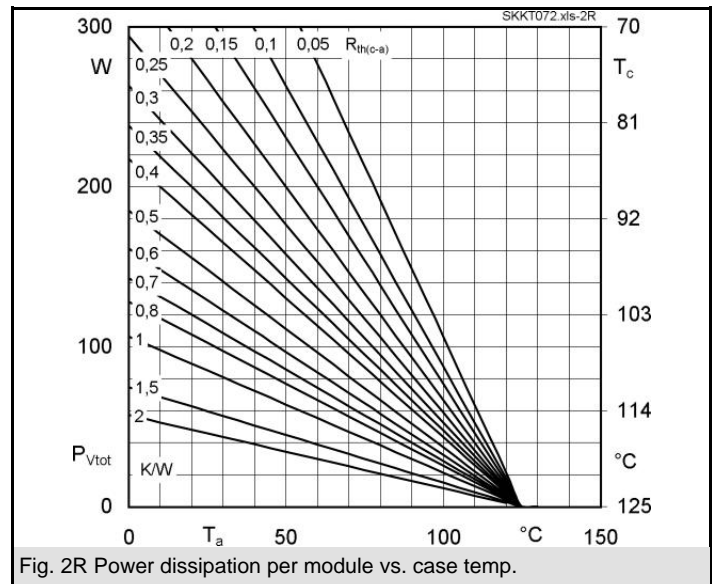
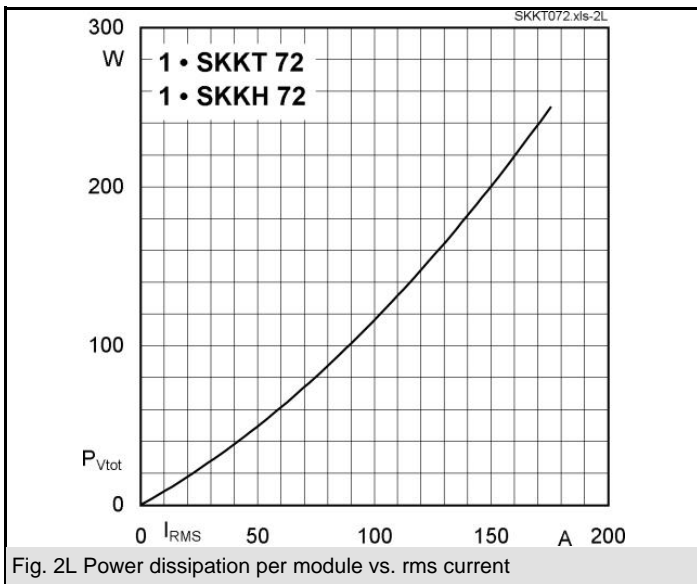
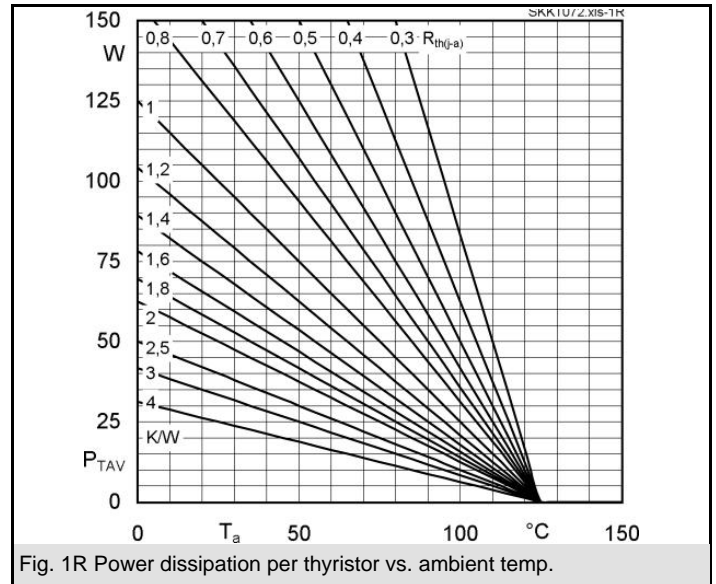
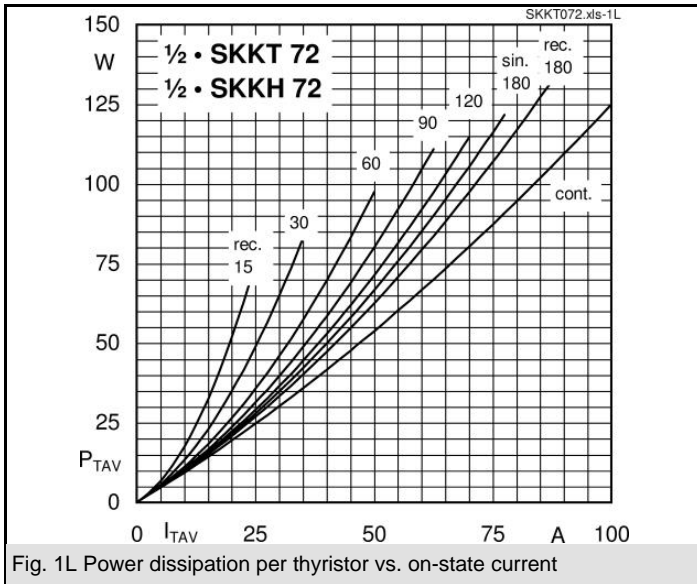
| Symbol | Conditions | Values | Units |
|------------------|---|------------------------|------------------|
| I_{TAV} | sin. 180; $T_c = 85$ (100) °C | 70 (50) | A |
| I_D | P3/180; $T_a = 45$ °C; B2 / B6 | 62 / 75 | A |
| | P3/180F; $T_a = 35$ °C; B2 / B6 | 115 / 145 | A |
| I_{RMS} | P3/180F; $T_a = 35$ °C; W1 / W3 | 155 / 3 * 115 | A |
| I_{TSM} | $T_{vj} = 25$ °C; 10 ms | 1600 | A |
| | $T_{vj} = 125$ °C; 10 ms | 1450 | A |
| i^2t | $T_{vj} = 25$ °C; 8,3 ... 10 ms | 13000 | A ² s |
| | $T_{vj} = 125$ °C; 8,3 ... 10 ms | 10500 | A ² s |
| V_T | $T_{vj} = 25$ °C; $I_T = 300$ A | max. 1,9 | V |
| $V_{T(TO)}$ | $T_{vj} = 125$ °C | 0,9 | V |
| r_T | $T_{vj} = 125$ °C | 3,5 | mΩ |
| $I_{DD}; I_{RD}$ | $T_{vj} = 125$ °C; $V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$ | max. 20 | mA |
| $I_{DD}; I_{RD}$ | for SKK .../20E; SKK .../22E | max. 30 | 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. | 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} | $T_{vj} = 125$ °C; d.c. | max. 0,25 | V |
| I_{GD} | $T_{vj} = 125$ °C; d.c. | max. 6 | mA |
| $R_{th(j-c)}$ | cont.; per thyristor / per module | 0,35 / 0,18 | K/W |
| $R_{th(j-c)}$ | sin. 180; per thyristor / per module | 0,37 / 0,19 | K/W |
| $R_{th(j-c)}$ | rec. 120; per thyristor / per module | 0,39 / 0,2 | 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~ |
| V_{isol} | a. c. 50 Hz; r.m.s.; 1 s / 1 min. for SKK...H4 | 4800 / 4000 | V~ |
| M_s | to heatsink | 5 ± 15 % ¹⁾ | Nm |
| M_t | to terminals | 3 ± 15 % | Nm |
| a | | 5 * 9,81 | m/s ² |
| m | approx. | 95 | g |
| Case | SKKT | A 46 | |
| | SKKT ...B | A 48 | |
| | SKKH | A 47 | |



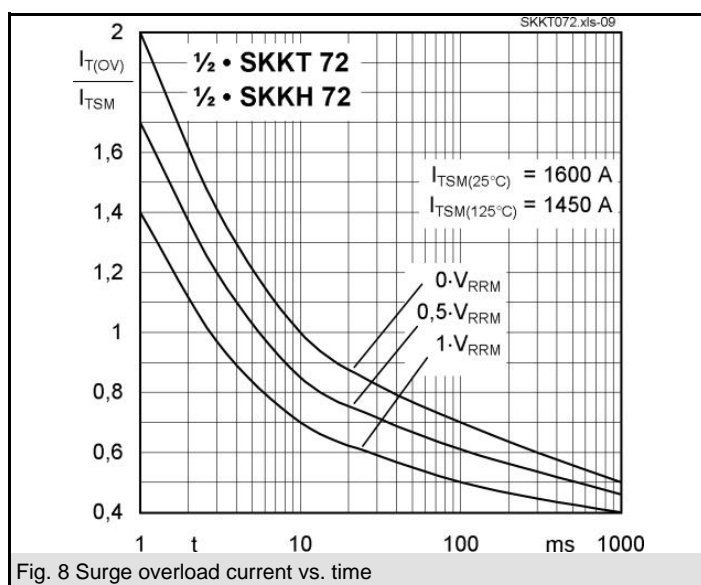
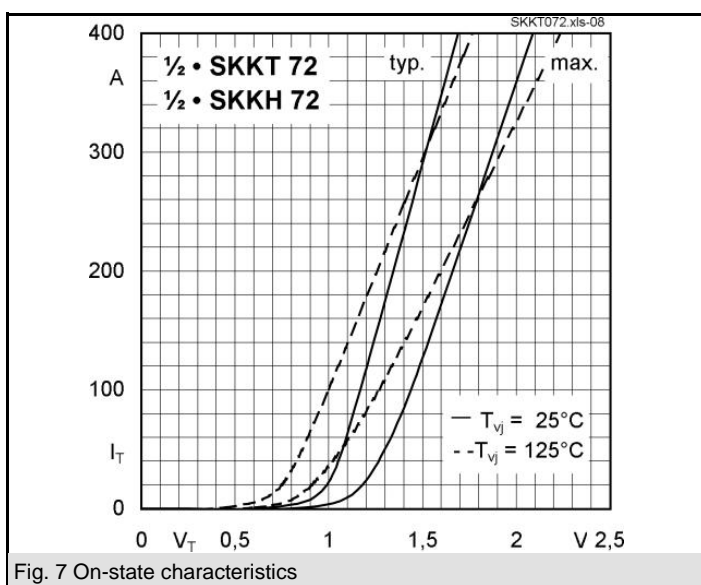
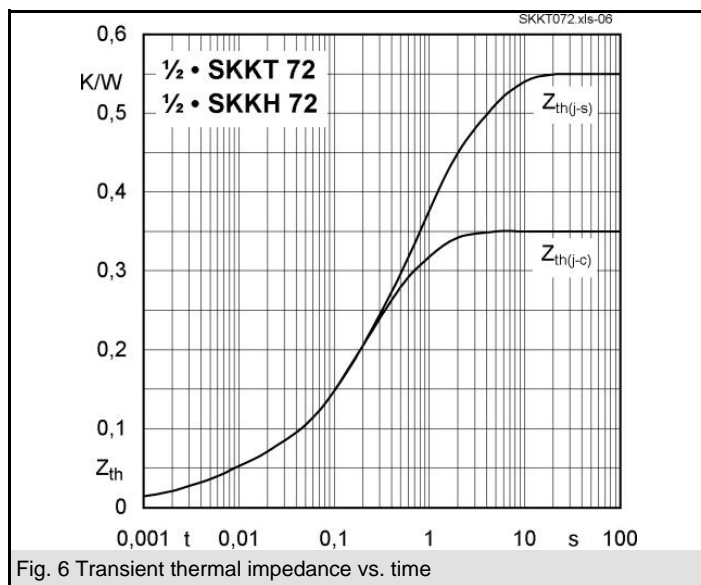
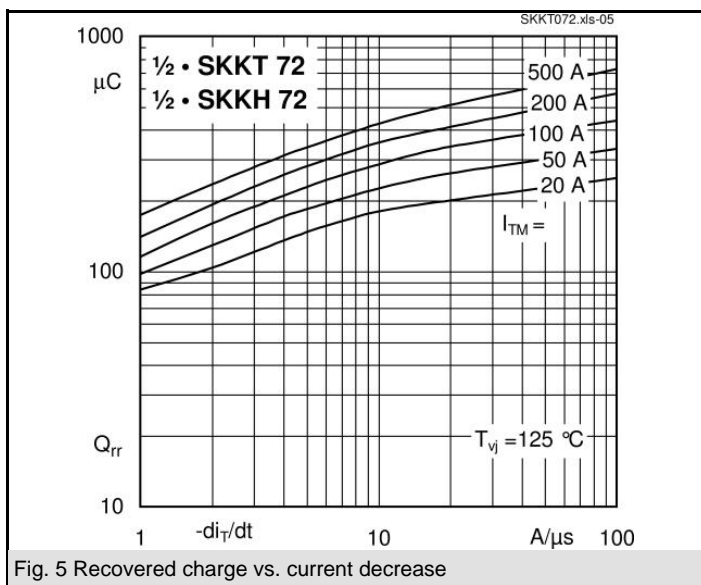
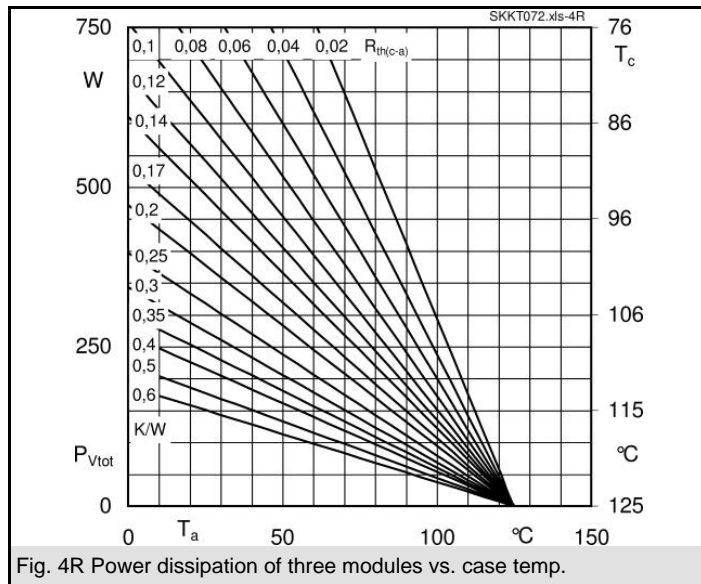
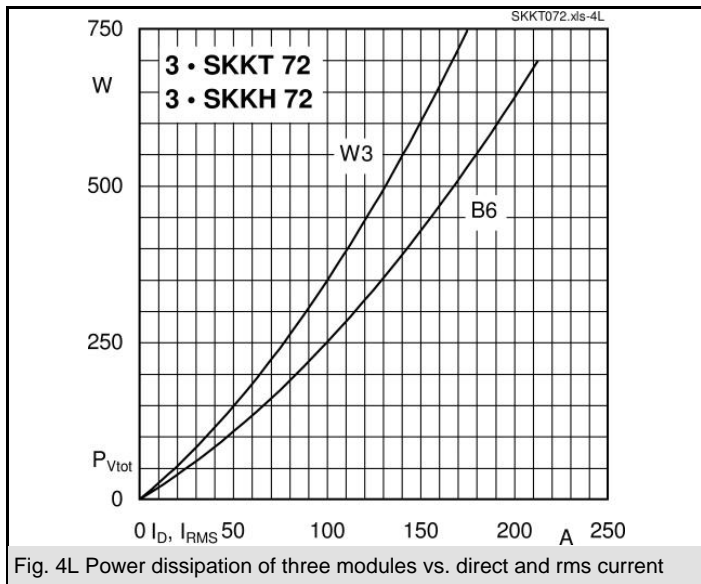
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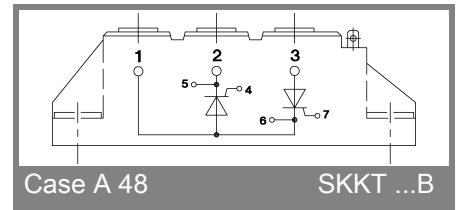
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