

SKKT 250, SKKH 250



SEMIPACK[®] 3

Thyristor / Diode Modules

SKKT 250

SKKH 250

Features

- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precious metal pressure contacts for high reliability
- Thyristor with amplifying gate
- UL recognized, file no. E 63 532

Typical Applications

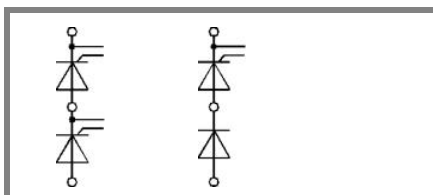
- DC motor control (e. g. for machine tools)
- AC motor starters
- Temperature control (e. g. for ovens, chemical processes)
- Professional light dimming (studios, theaters)

1) See the assembly instructions

2) The screws must be lubricated

| V_{RSM} V | V_{RRM}, V_{DRM} V | $I_{TRMS} = 420$ A (maximum value for continuous operation) $I_{TAV} = 250$ A (sin. 180; $T_c = 85$ °C) | |
|----------------|-------------------------|--|--------------|
| 900 | 800 | SKKT 250/08E | |
| 1300 | 1200 | SKKT 250/12E | SKKH 250/12E |
| 1500 | 1400 | SKKT 250/14E | SKKH 250/14E |
| 1700 | 1600 | SKKT 250/16E | SKKH 250/16E |
| 1900 | 1800 | SKKT 250/18E | SKKH 250/18E |

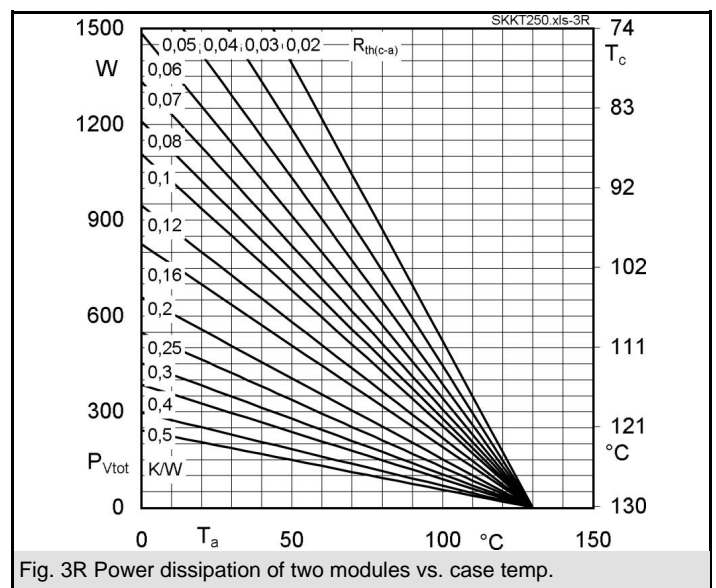
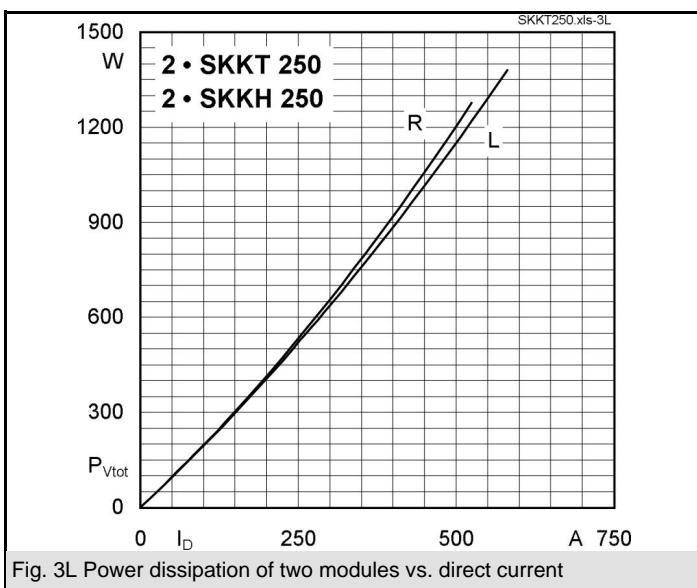
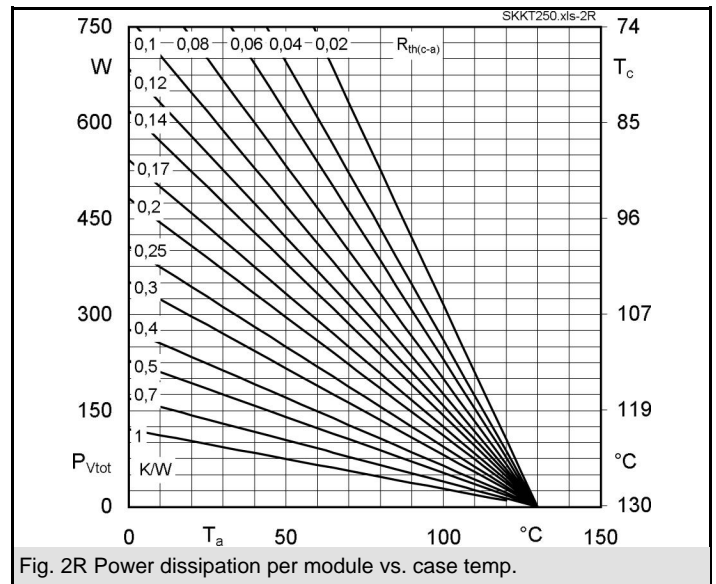
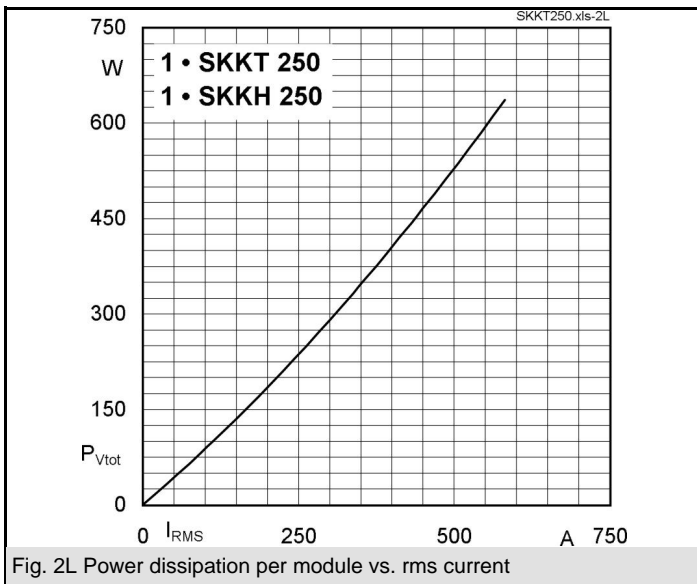
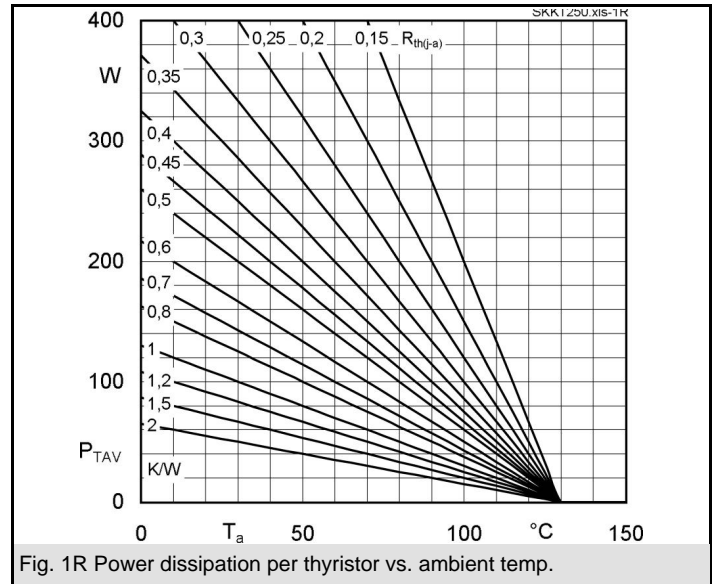
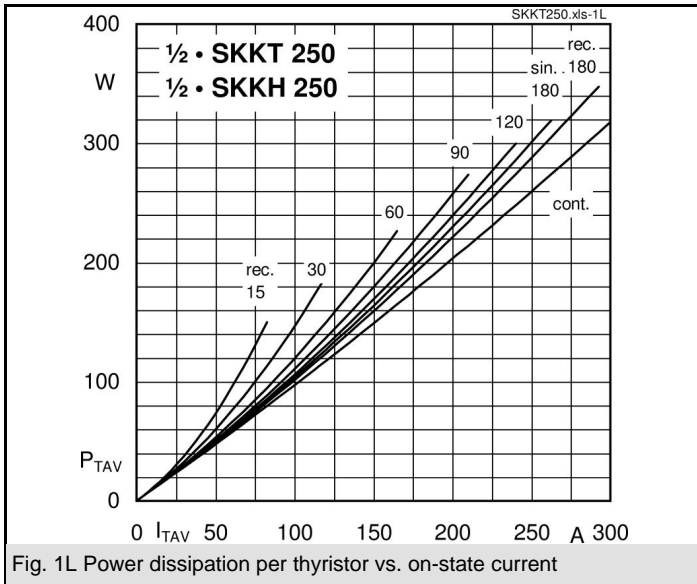
| Symbol | Conditions | Values | Units |
|------------------|---|------------------------|------------------|
| I_{TAV} | sin. 180; $T_c = 85$ (100) °C | 250 (178) | A |
| I_D | P16/200F; $T_a = 35$ °C; B2/B6 | 450 / 585 | A |
| I_{RMS} | P16/200F; $T_a = 35$ °C; W1 / W3 | 566 / 3 * 471 | A |
| I_{TSM} | $T_{vj} = 25$ °C; 10 ms | 9000 | A |
| | $T_{vj} = 130$ °C; 10 ms | 8000 | A |
| i^2t | $T_{vj} = 25$ °C; 8,3 ... 10 ms | 405000 | A ² s |
| | $T_{vj} = 130$ °C; 8,3 ... 10 ms | 320000 | A ² s |
| V_T | $T_{vj} = 25$ °C; $I_T = 750$ A | max. 1,4 | V |
| $V_{T(TO)}$ | $T_{vj} = 130$ °C | 0,925 | V |
| r_T | $T_{vj} = 130$ °C | 0,45 | mΩ |
| I_{DD}, I_{RD} | $T_{vj} = 130$ °C; $V_{RD} = V_{RRM}, V_{DD} = V_{DRM}$ | max. 50 | 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. 250 | A/μs |
| $(dv/dt)_{cr}$ | $T_{vj} = 130$ °C | max. 1000 | V/μs |
| t_q | $T_{vj} = 130$ °C | 50 ... 150 | 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} | $T_{vj} = 130$ °C; d.c. | max. 0,25 | V |
| I_{GD} | $T_{vj} = 130$ °C; d.c. | max. 10 | mA |
| $R_{th(j-c)}$ | cont.; per thyristor / per module | 0,14 / 0,07 | K/W |
| $R_{th(j-c)}$ | sin. 180; per thyristor / per module | 0,15 / 0,075 | K/W |
| $R_{th(j-c)}$ | rec. 120; per thyristor / per module | 0,165 / 0,083 | K/W |
| $R_{th(c-s)}$ | per thyristor / per module | 0,04 / 0,02 | K/W |
| T_{vj} | | - 40 ... + 130 | °C |
| T_{stg} | | - 40 ... + 130 | °C |
| V_{isol} | a. c. 50 Hz; r.m.s.; 1 s / 1 min. | 3600 / 3000 | V~ |
| M_s | to heatsink | 5 ± 15 % ¹⁾ | Nm |
| M_t | to terminals | 9 ± 15 % ²⁾ | Nm |
| a | | 5 * 9,81 | m/s ² |
| m | approx. | 750 | g |
| Case | SKKT SKKH | A 73 a A 76 a | |



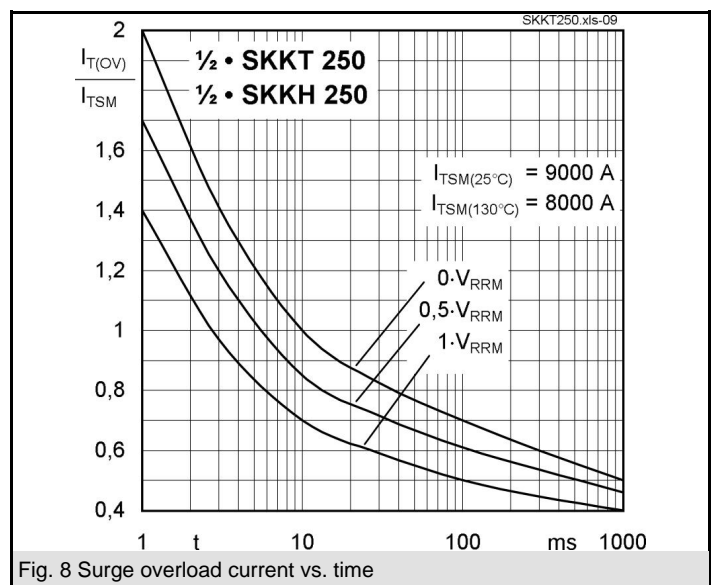
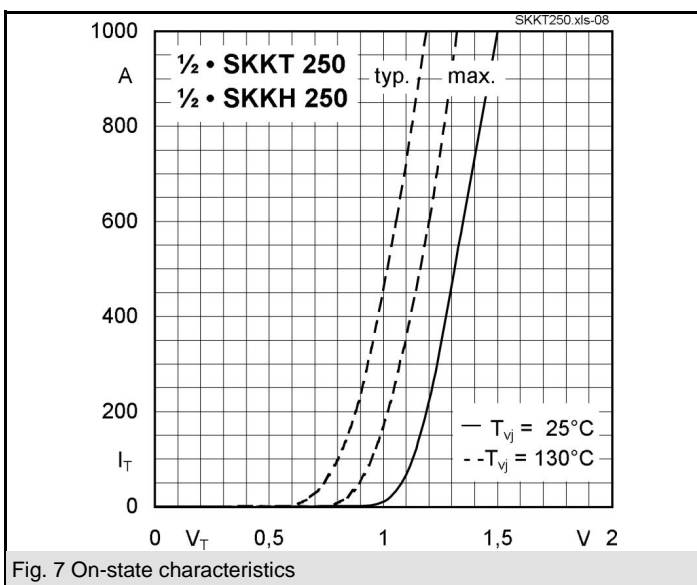
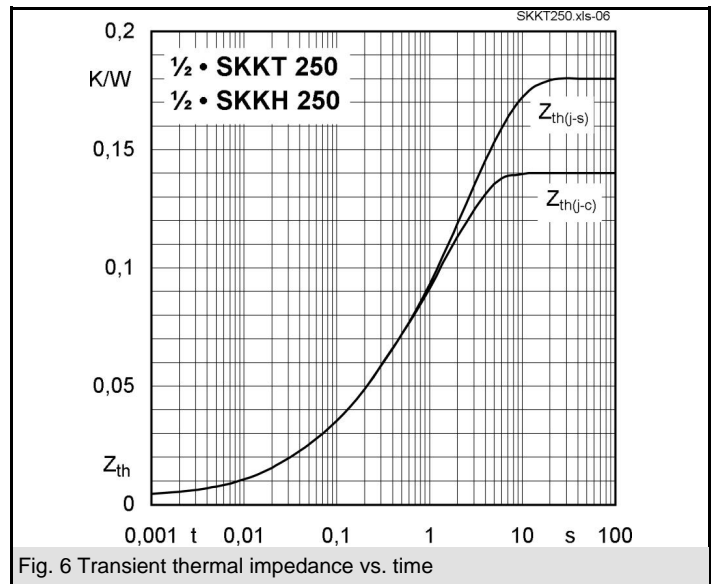
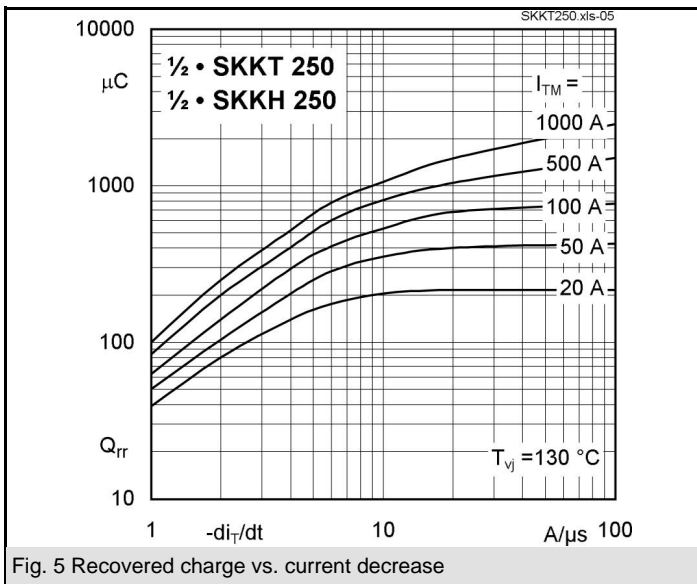
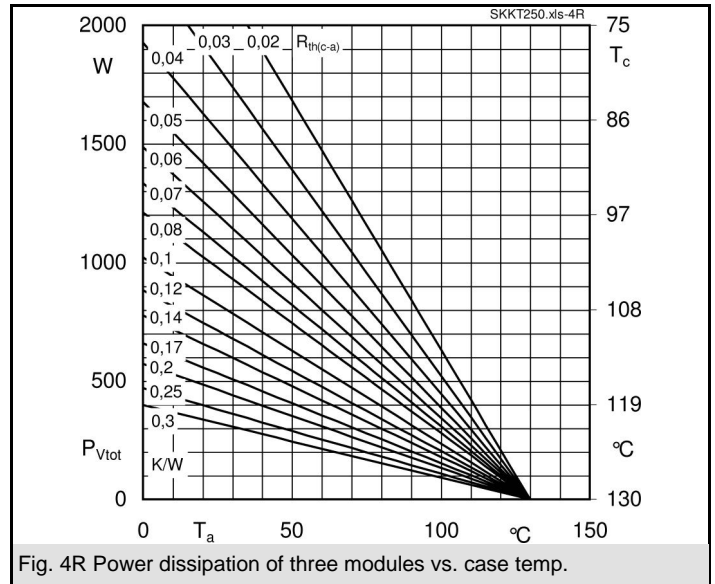
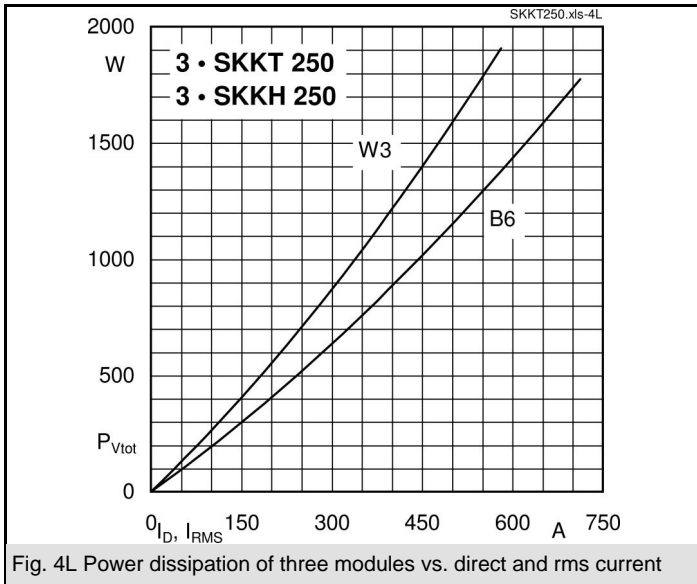
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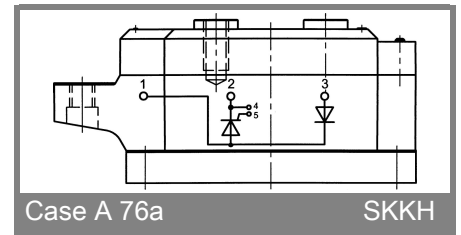
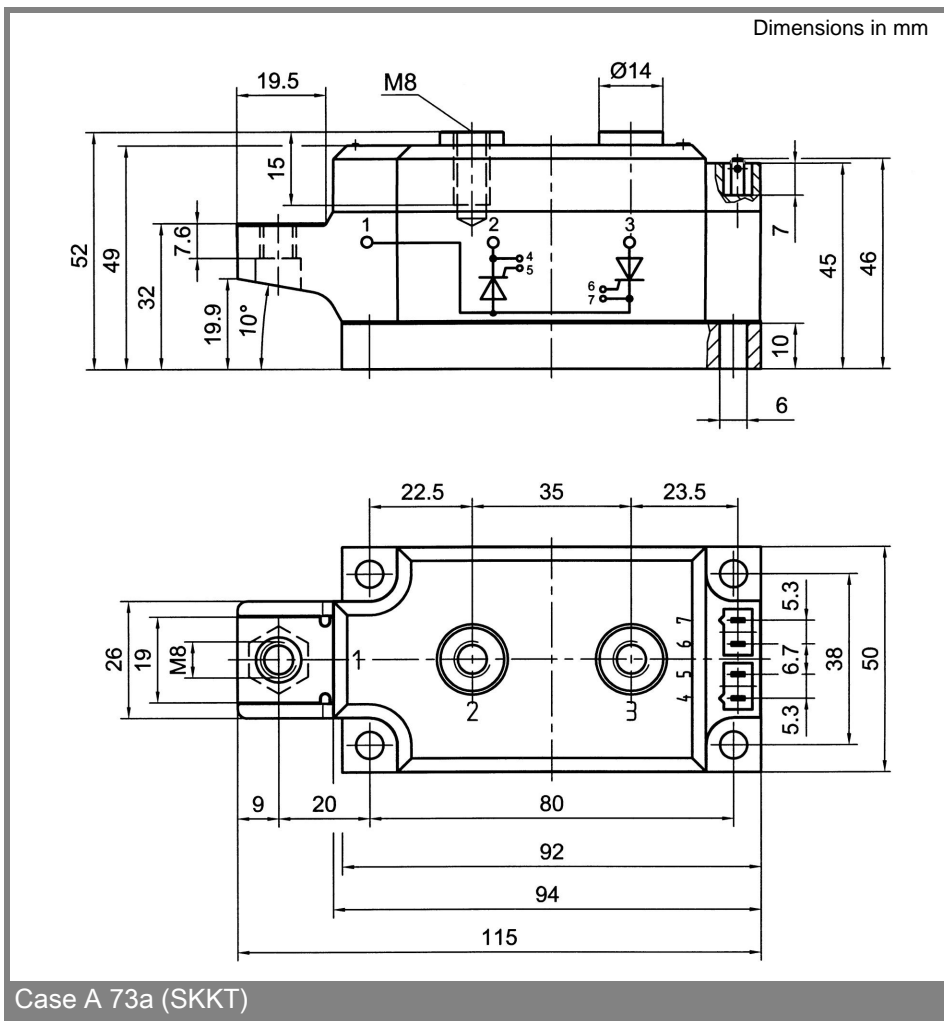
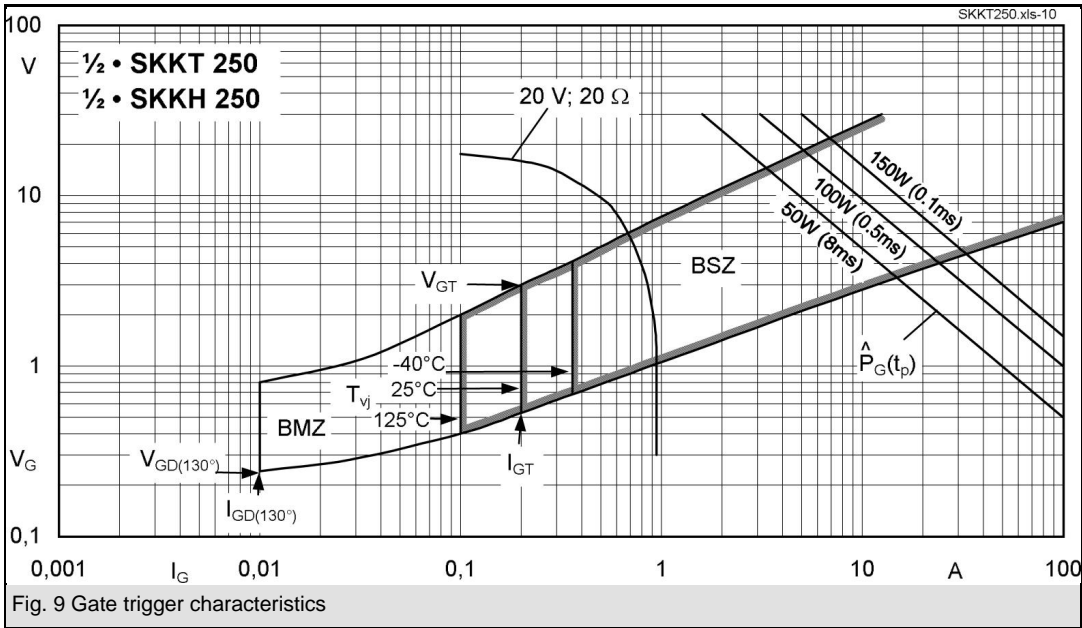
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