

SKT 50



Stud Thyristor

Line Thyristor

SKT 50

Features

- Hermetic metal case with glass insulator
- Threaded stud ISO M8 or UNF 1/4-28
- International standard case

Typical Applications

- DC motor control (e. g. for machine tools)
- Controlled rectifiers (e. g. for battery charging)
- AC controllers (e. g. for temperature control)
- Recommended snubber network e. g. for $V_{VRMS} \leq 400$ V:
 $R = 68 \Omega / 11$ W, $C = 0,22 \mu F$

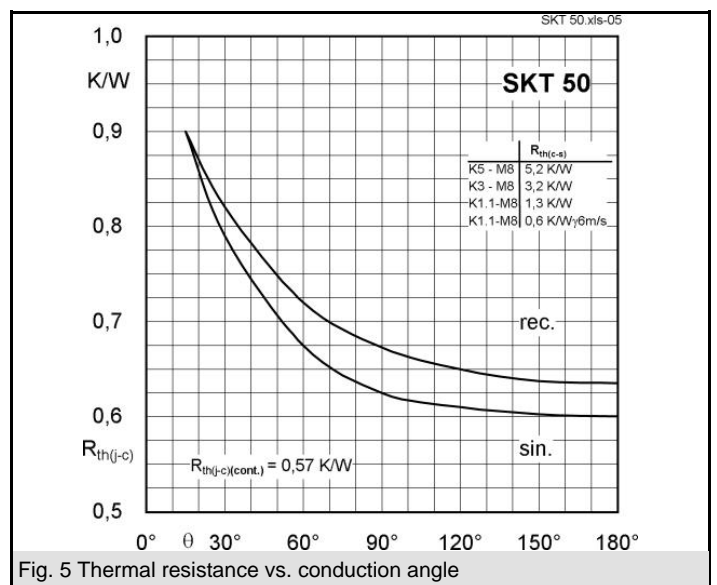
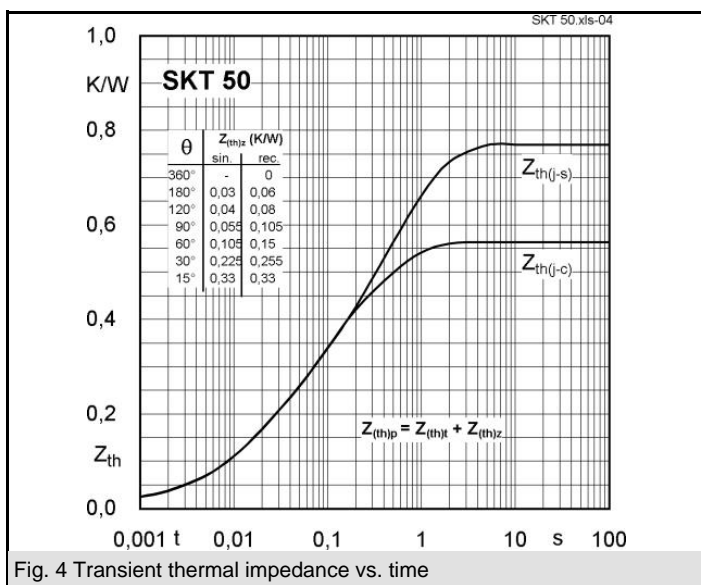
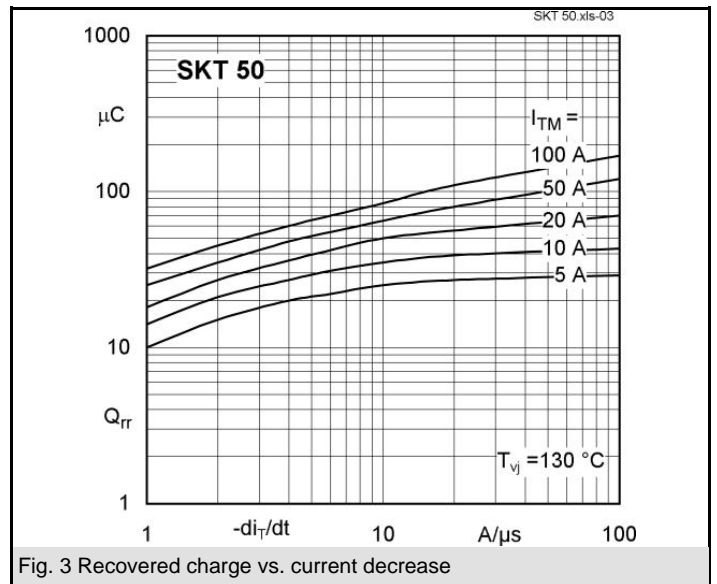
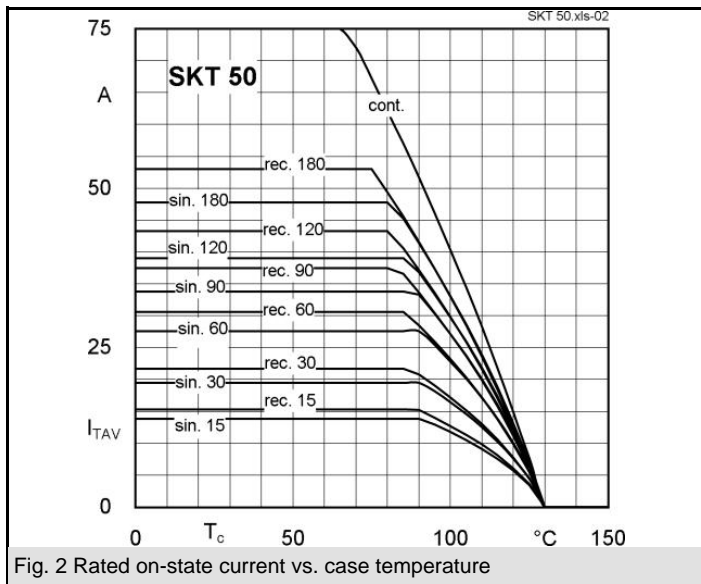
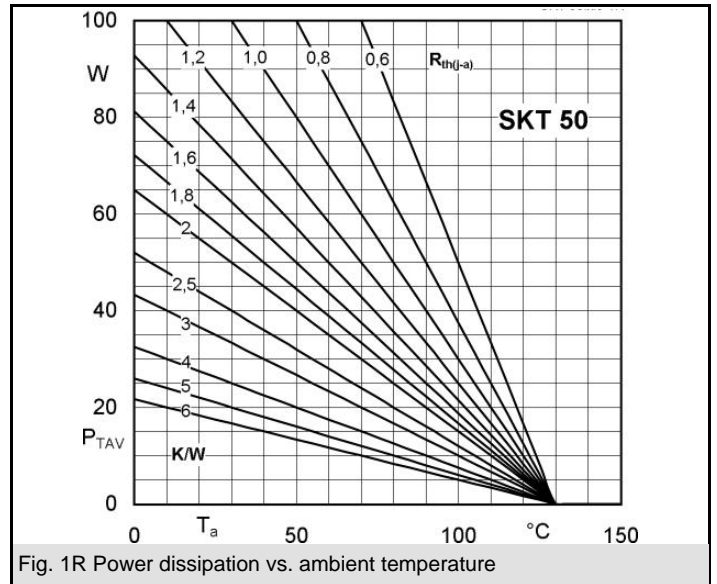
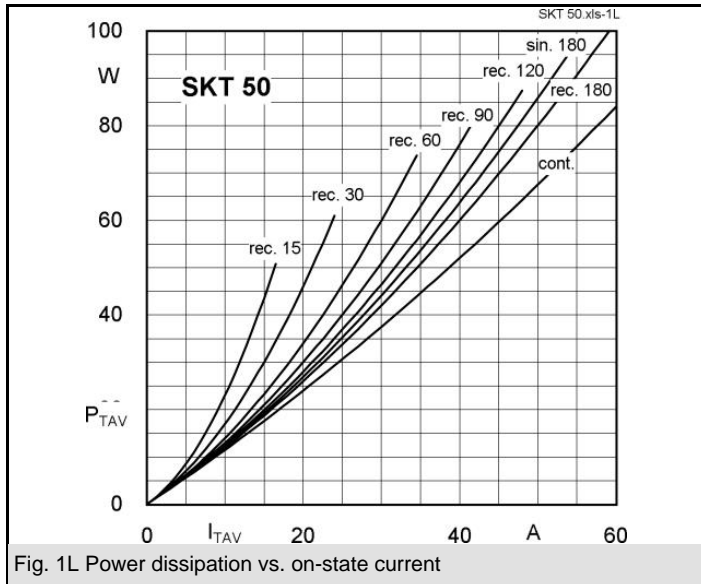
1) Available with UNF thread 1/4-28 UNF2A, e. g. SKT 50/06D UNF

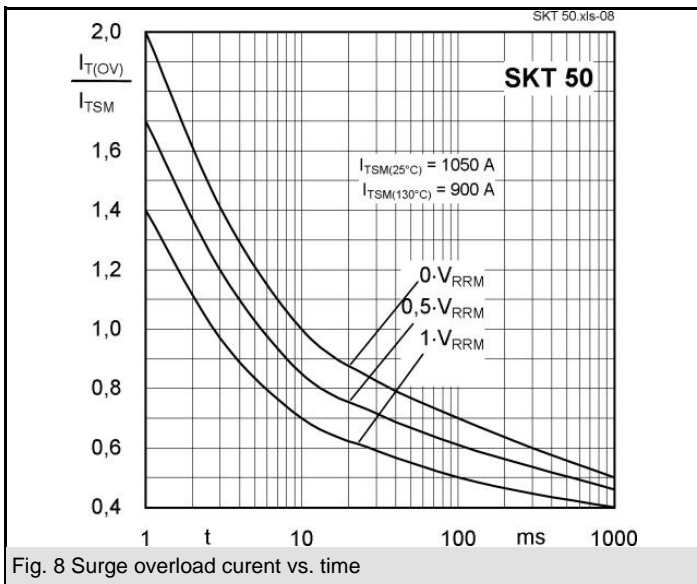
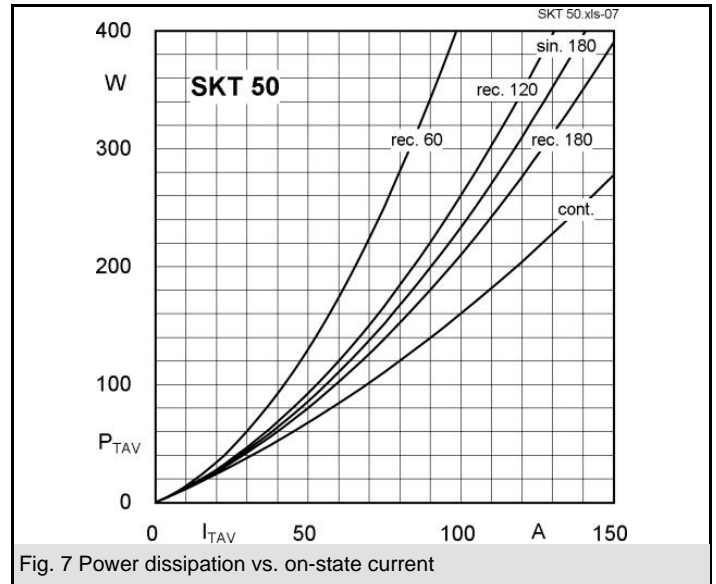
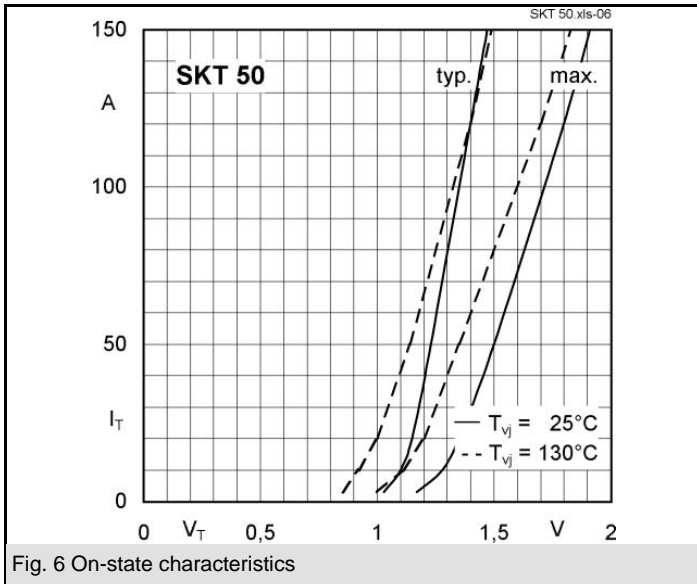
| V_{RSM} V | V_{RRM}, V_{DRM} V | $I_{TRMS} = 78$ A (maximum value for continuous operation) $I_{TAV} = 50$ A (sin. 180; $T_c = 78$ °C) | |
|----------------|-------------------------|----------------------------------------------------------------------------------------------------------|--|
| 700 | 600 | SKT 50/06D ¹⁾ | |
| 900 | 800 | SKT 50/08D | |
| 1300 | 1200 | SKT 50/12E ¹⁾ | |
| 1500 | 1400 | SKT 50/14E ¹⁾ | |
| 1700 | 1600 | SKT 50/16E ¹⁾ | |
| 1900 | 1800 | SKT 50/18E | |

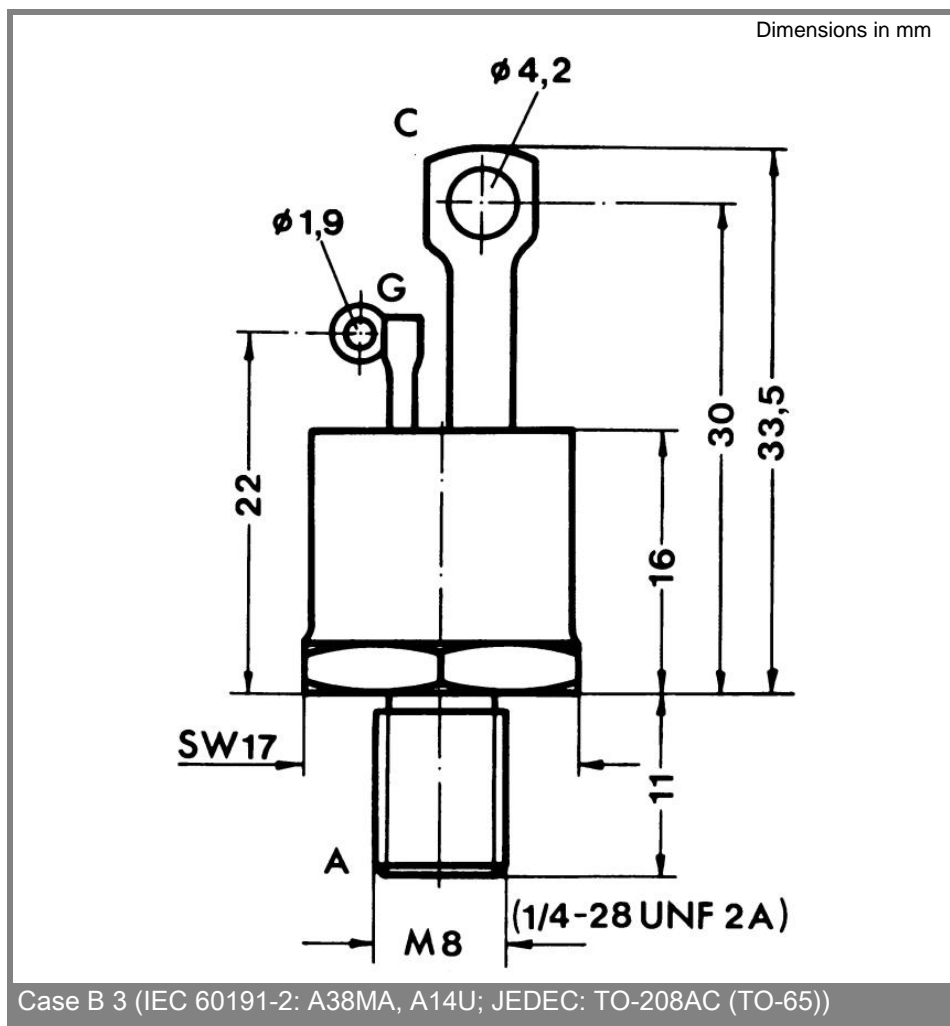
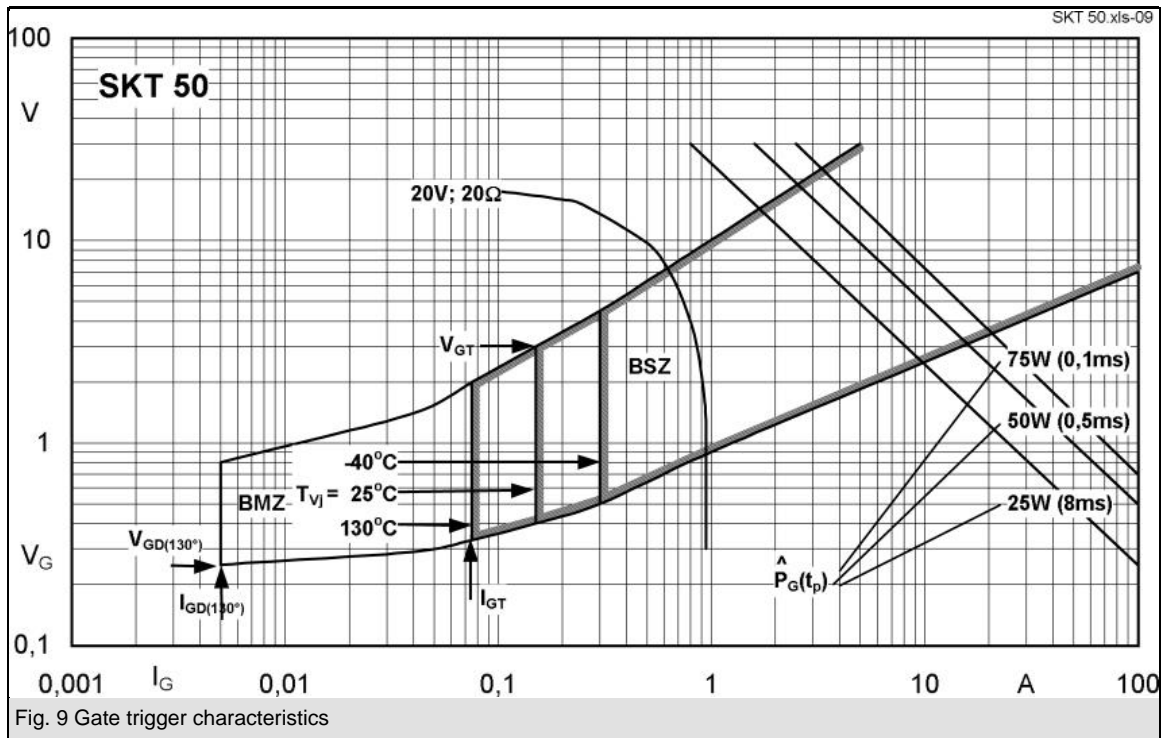
| Symbol | Conditions | Values | Units |
|------------------|---------------------------------------------------------|-----------------|------------------|
| I_{TAV} | sin. 180; $T_c = 100$ (85) °C; | 33 (45) | A |
| I_D | K5; $T_a = 45$ °C; B2 / B6 | 25 / 36 | A |
| | K3; $T_a = 45$ °C; B2 / B6 | 36 / 50 | A |
| I_{RMS} | K3; $T_a = 45$ °C; W1C | 40 | A |
| I_{TSM} | $T_{vj} = 25$ °C; 10 ms | 1050 | A |
| | $T_{vj} = 130$ °C; 10 ms | 900 | A |
| i^2t | $T_{vj} = 25$ °C; 8,35 ... 10 ms | 5000 | A ² s |
| | $T_{vj} = 130$ °C; 8,35 ... 10 ms | 4000 | A ² s |
| V_T | $T_{vj} = 25$ °C; $I_T = 120$ A | max. 1,8 | V |
| $V_{T(TO)}$ | $T_{vj} = 130$ °C | max. 1,1 | V |
| r_T | $T_{vj} = 130$ °C | max. 5 | mΩ |
| I_{DD}, I_{RD} | $T_{vj} = 130$ °C; $V_{RD} = V_{RRM}, V_{DD} = V_{DRM}$ | max. 8 | mA |
| t_{gd} | $T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/μs | 1 | μs |
| t_{gr} | $V_D = 0,67 * V_{DRM}$ | 1,5 | μs |
| $(di/dt)_{cr}$ | $T_{vj} = 130$ °C | max. 50 | A/μs |
| $(dv/dt)_{cr}$ | $T_{vj} = 130$ °C; SKT ...D / SKT ...E | max. 500 / 1000 | V/μs |
| t_q | $T_{vj} = 130$ °C, | 100 | μs |
| I_H | $T_{vj} = 25$ °C; typ. / max. | 100 / 200 | mA |
| I_L | $T_{vj} = 25$ °C; $R_G = 33 \Omega$; 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} | $T_{vj} = 130$ °C; d.c. | max. 0,25 | V |
| I_{GD} | $T_{vj} = 130$ °C; d.c. | max. 5 | mA |
| $R_{th(j-c)}$ | cont. | 0,57 | K/W |
| $R_{th(j-c)}$ | sin. 180 | 0,6 | K/W |
| $R_{th(j-c)}$ | rec. 120 | 0,65 | K/W |
| $R_{th(c-s)}$ | | 0,2 | K/W |
| T_{vj} | | - 40 ... + 130 | °C |
| T_{stg} | | - 55 ... + 150 | °C |
| V_{isol} | | - | V~ |
| M_s | to heatsink | 4 (UNF: 2,5) | Nm |
| a | | 5 * 9,81 | m/s ² |
| m | approx. | 2,2 | g |
| Case | | B 3 | |



SKT







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