

SKT 340



Capsule Thyristor

Line Thyristor

SKT 340

Features

- Hermetic metal case with ceramic insulator
- Capsule package for double sided cooling
- Shallow design with single sided cooling
- International standard case
- Off-state and reverse voltages up to 1800 V

Typical Applications*

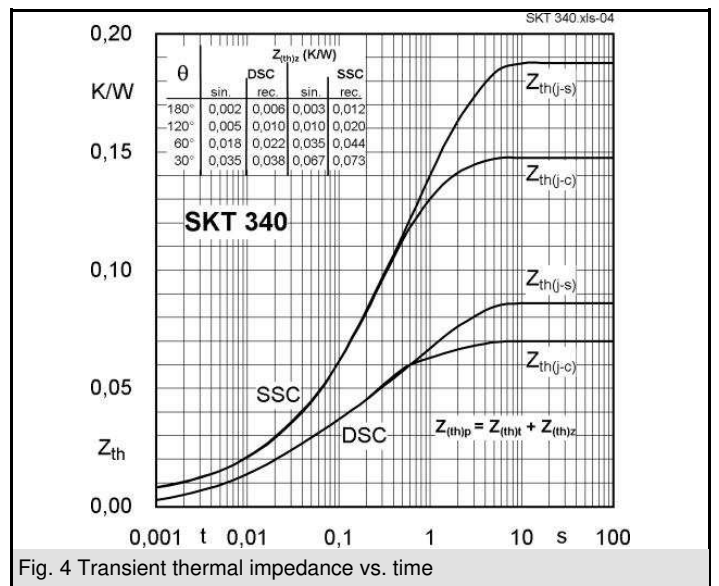
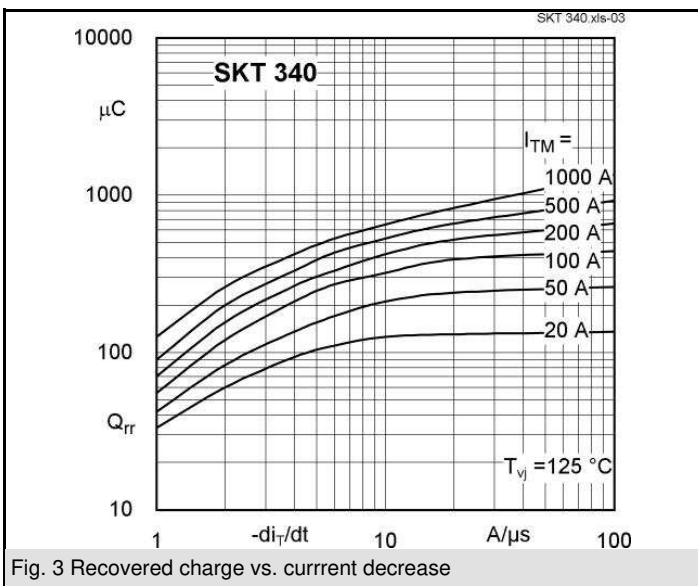
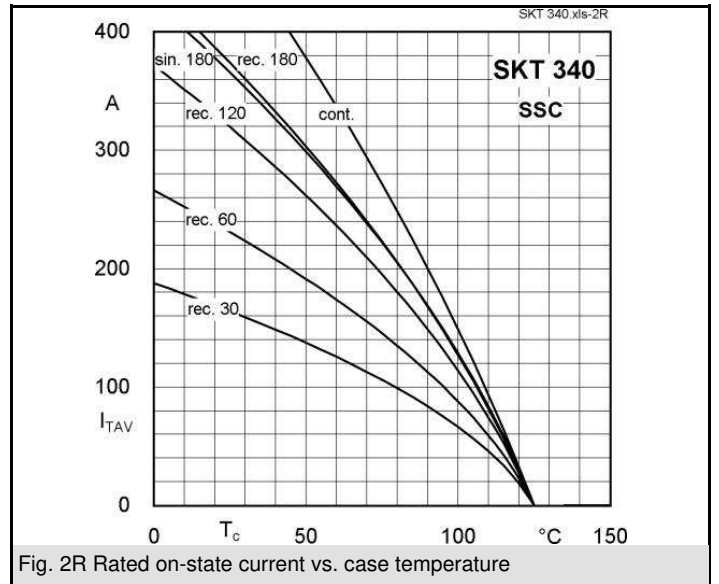
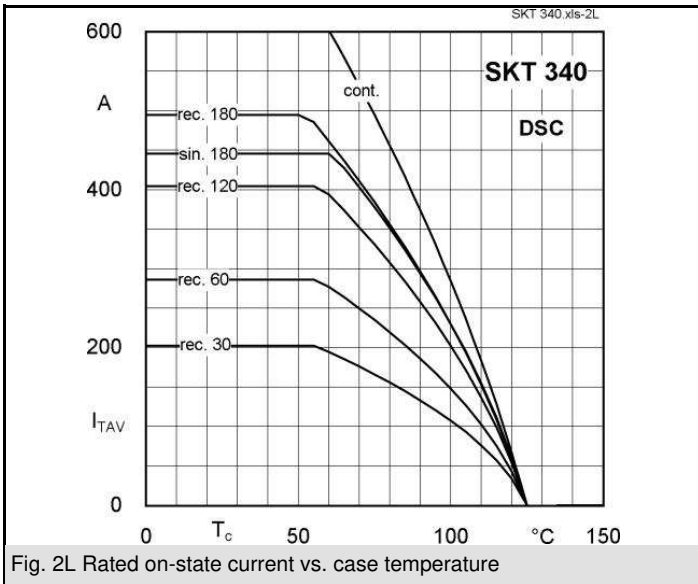
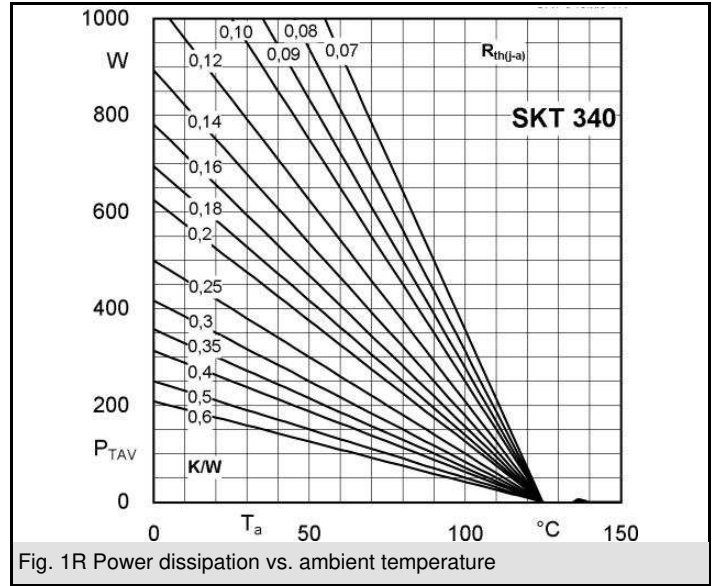
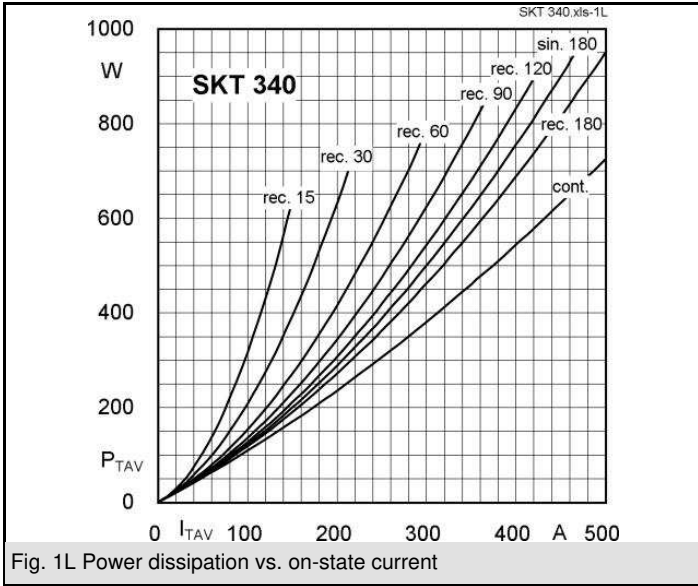
- DC motor control (e. g. for machine tools)
- Controlled rectifiers (e. g. for battery charging)
- AC controllers (e. g. for temperature control)
- Recommended snubber network e. g. for $V_{VRMS} \leq 400$ V:
 $R = 33 \Omega / 32$ W, $C = 0,47 \mu F$

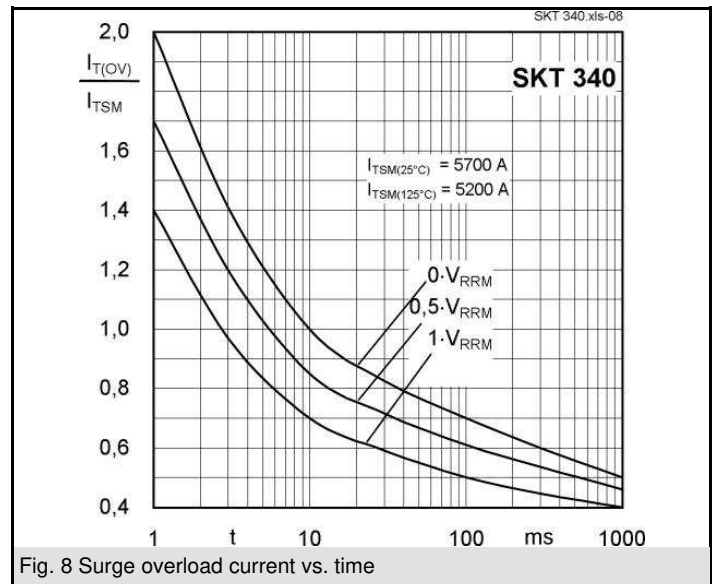
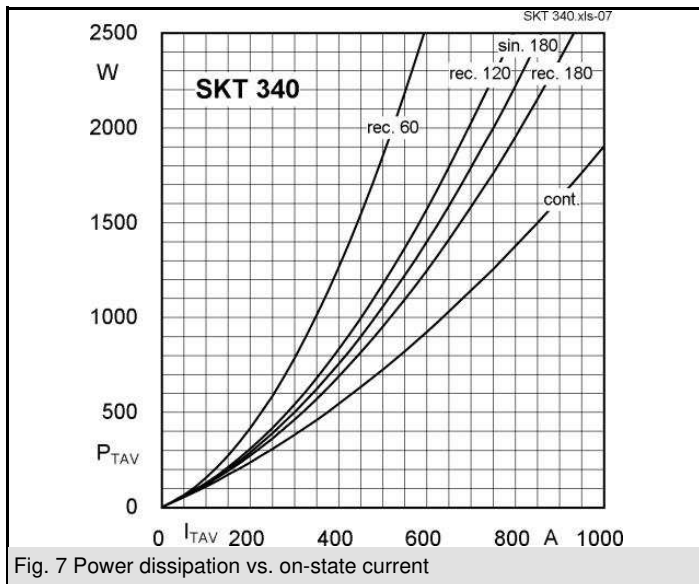
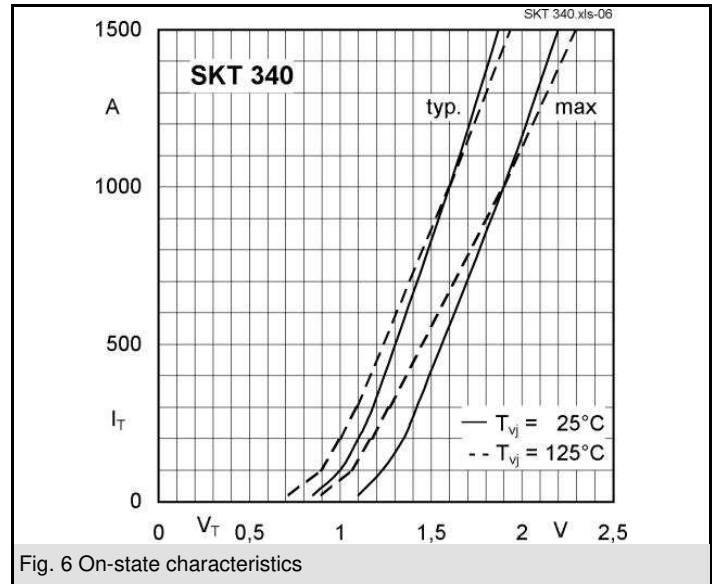
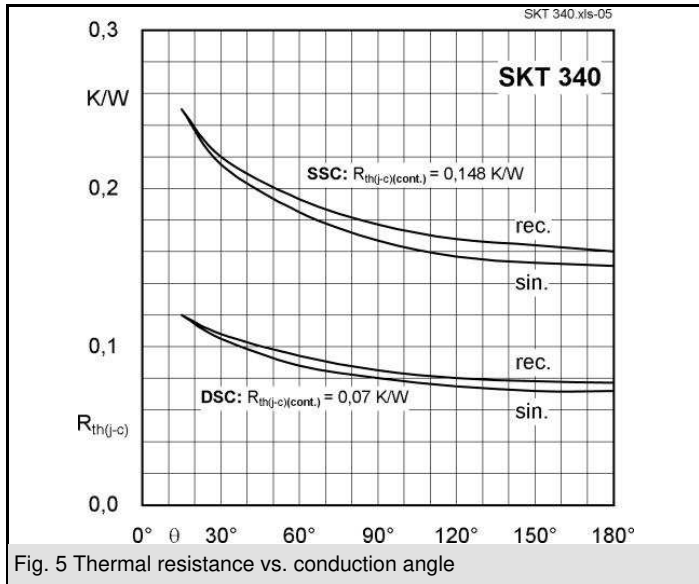
| V_{RSM} V | V_{RRM}, V_{DRM} V | $I_{TRMS} = 700$ A (maximum value for continuous operation) $I_{TAV} = 340$ A (sin. 180; DSC; $T_c = 82$ °C) | |
|----------------|-------------------------|---|--|
| 1300 | 1200 | SKT 340/12E | |
| 1700 | 1600 | SKT 340/16E | |
| 1900 | 1800 | SKT 340/18E | |

| Symbol | Conditions | Values | Units |
|------------------|---|-----------------|------------------|
| I_{TAV} | sin. 180; $T_c = 100$ (85) °C; | 230 (323) | A |
| I_D | 2 x P8/180; $T_a = 45$ °C; B2 / B6 | 300 / 420 | A |
| | 2 x P8/180F; $T_a = 35$ °C; B2 / B6 | 620 / 870 | A |
| I_{RMS} | 2 x P8/180; $T_a = 45$ °C; W1C | 330 | A |
| I_{TSM} | $T_{vj} = 25$ °C; 10 ms | 5700 | A |
| | $T_{vj} = 125$ °C; 10 ms | 5200 | A |
| i^2t | $T_{vj} = 25$ °C; 8,3 ... 10 ms | 162000 | A ² s |
| | $T_{vj} = 125$ °C; 8,3 ... 10 ms | 135000 | A ² s |
| V_T | $T_{vj} = 25$ °C; $I_T = 1000$ A | max. 1,9 | V |
| $V_{T(TO)}$ | $T_{vj} = 125$ °C | max. 1 | V |
| r_T | $T_{vj} = 125$ °C | max. 0,9 | mΩ |
| I_{DD}, I_{RD} | $T_{vj} = 125$ °C; $V_{RD} = V_{RRM}, V_{DD} = V_{DRM}$ | max. 40 | 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 |
| $(di/dt)_{cr}$ | $T_{vj} = 125$ °C | max. 125 | A/μs |
| $(dv/dt)_{cr}$ | $T_{vj} = 125$ °C; SKT ...D / SKT ...E | max. 500 / 1000 | V/μs |
| t_q | $T_{vj} = 125$ °C, | 50 ... 150 | μs |
| I_H | $T_{vj} = 25$ °C; typ. / max. | 150 / 400 | mA |
| I_L | $T_{vj} = 25$ °C; typ. / max. | 300 / 1000 | mA |
| V_{GT} | $T_{vj} = 25$ °C; d.c. | min. 2 | 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. 10 | mA |
| $R_{th(j-c)}$ | cont.; DSC | 0,07 | K/W |
| | sin. 180; DSC / SSC | 0,072 / 0,151 | K/W |
| | rec. 120; DSC / SSC | 0,08 / 0,168 | K/W |
| $R_{th(c-s)}$ | DSC / SSC | 0,02 / 0,04 | K/W |
| T_{vj} | | - 40 ... + 125 | °C |
| T_{stg} | | - 40 ... + 130 | °C |
| V_{isol} | | - | V~ |
| F | mounting force | 4 ... 5 | kN |
| a | | | m/s ² |
| m | approx. | 61 | g |
| Case | | B 8 | |



SKT





products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our staff.