

V_{RSM}	V_{RRM} V_{DRM}	$\left(\frac{dv}{dt}\right)_{cr}$	I_{TRMS} (maximum values for continuous operation)	
			63 A	78 A
V	V	V/ μ s	I_{TAV} (sin. 180; $T_{case} = \dots$ °C) 40 A (80 °C)	50 A (78 °C)
500	400	500	SKT 40/04 D	–
700	600	500	SKT 40/06 D	SKT 50/06 D*
900	800	500	SKT 40/08 D	SKT 50/08 D
1300	1200	1000	SKT 40/12 E	SKT 50/12 E*
1500	1400	1000	SKT 40/14 E	SKT 50/14 E*
1700	1600	1000	SKT 40/16 E	SKT 50/16 E*
1900	1800	1000	SKT 40/18 E+	SKT 50/18 E+

Symbol	Conditions	SKT 40	SKT 50	Units
I_{TAV}	sin. 180; $T_{case} = 85$ °C	38	45	A
I_{TSM}	$T_{vj} = 25$ °C; 10 ms $T_{vj} = 130$ °C; 10 ms	700 600	1050 900	A A
i^2t	$T_{vj} = 25$ °C; 8,35 ... 10 ms $T_{vj} = 130$ °C; 8,35 ... 10 ms	2500 1800	5000 4000	A^2s A^2s
t_{gd}	$T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/ μ s	typ. 1		μ s
t_{gr}	$V_D = 0,67 \cdot V_{DRM}$	typ. 1,5		μ s
$(di/dt)_{cr}$	$f = 50 \dots 60$ Hz	50		A/ μ s
I_H	$T_{vj} = 25$ °C	typ. 100; max. 200		mA
I_L	$T_{vj} = 25$ °C; $R_G = 33$ Ω	typ. 250; max. 400		mA
t_q	$T_{vj} = 130$ °C; typ.	100		μ s
V_T	$T_{vj} = 25$ °C; $I_T = 120$ A; max.	1,95	1,8	V
$V_{T(TO)}$	$T_{vj} = 130$ °C	1,0	1,1	V
r_T	$T_{vj} = 130$ °C	9	5	m Ω
I_{DD}, I_{RD}	$T_{vj} = 130$ °C; $V_{DD} = V_{DRM}$ $V_{RD} = V_{RRM}$	8	8	mA
V_{GT}	$T_{vj} = 25$ °C	3		V
I_{GT}	$T_{vj} = 25$ °C	150		mA
V_{GD}	$T_{vj} = 130$ °C	0,25		V
I_{GD}	$T_{vj} = 130$ °C	5		mA
R_{thjc}	cont. sin. 180 rec. 120	0,60 0,66 0,70	0,57 0,60 0,65	°C/W °C/W °C/W
R_{thch}		0,20		°C/W
T_{vj}		– 40 ... +130		°C
T_{stg}		– 55 ... +150		°C
M	SI units US units	4 (UNF: 2,5) 35 (UNF: 22)		Nm lb. in.
a		5 · 9,81		m/s ²
w		2,2		g
Case		B 3		

Thyristors

SKT 40
SKT 50



Features

- Hermetic metal cases with glass insulators
- Threaded studs ISO M8 or UNF 1/4-28
- International standard cases

Typical Applications

- DC motor control (e. g. for machine tools)
- Controlled rectifiers (e. g. for battery charging)
- AC controllers (e. g. for temperature control)

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

♦ available in limited quantities

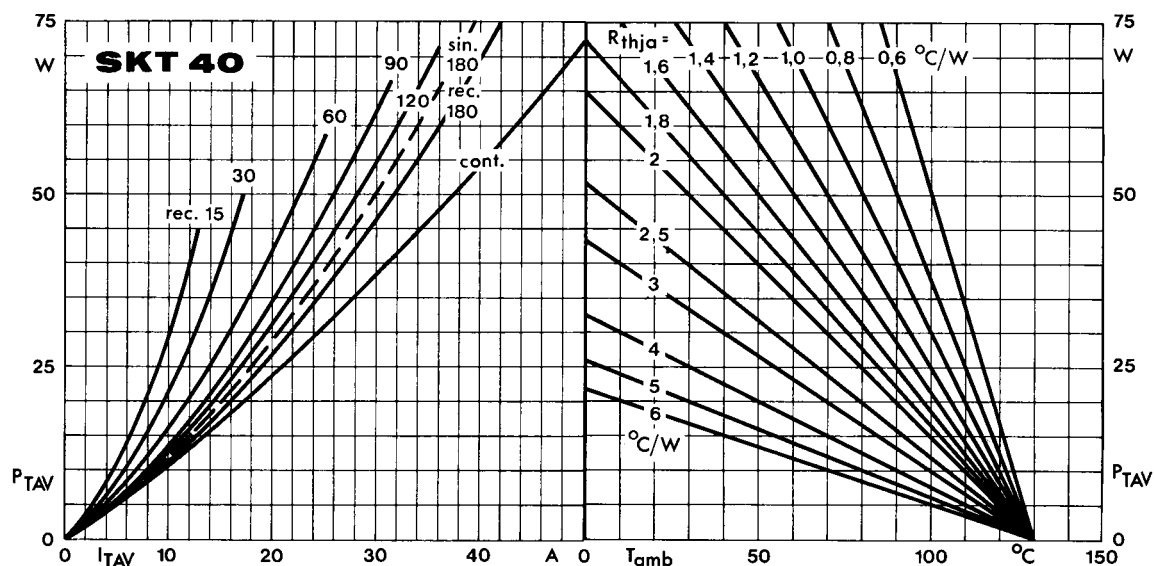


Fig. 1 a Power dissipation vs. on-state current and ambient temperature

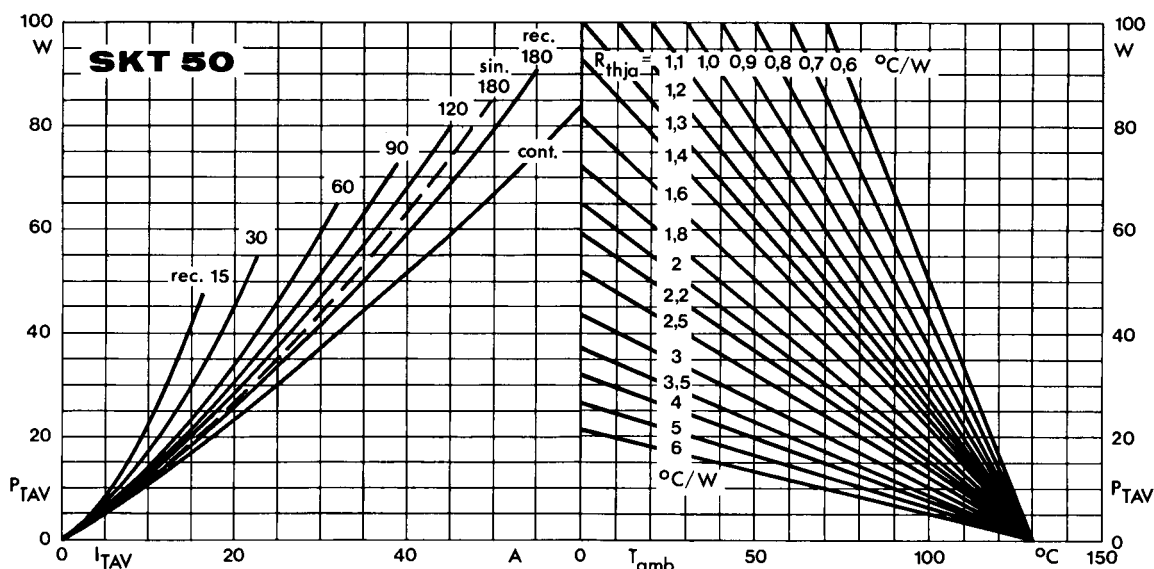


Fig. 1 b Power dissipation vs. on-state current and ambient temperature

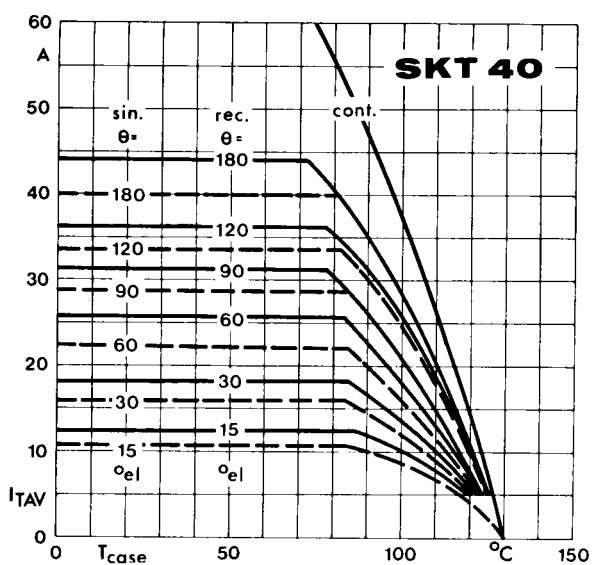


Fig. 2 a Rated on-state current vs. case temperature

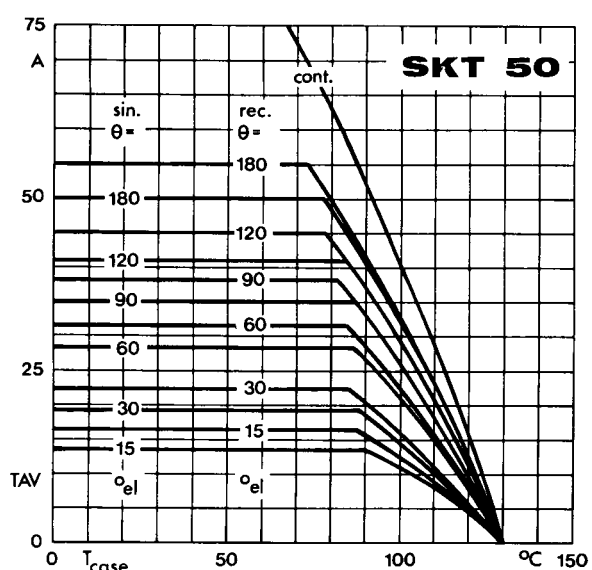


Fig. 2 b Rated on-state current vs. case temperature

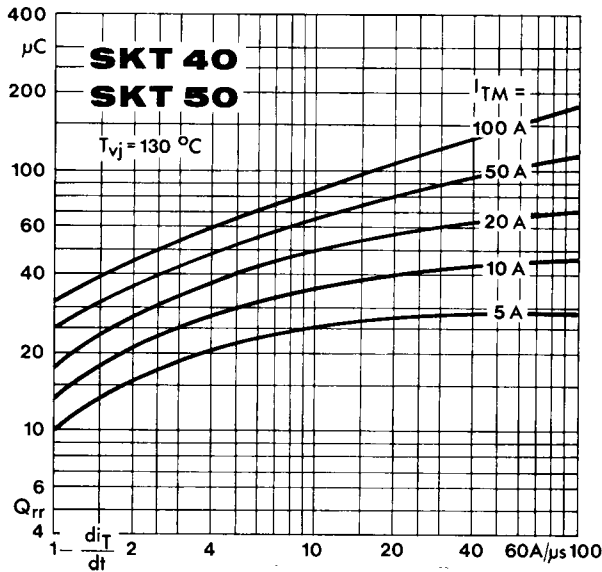


Fig. 3 Recovered charge vs. current decrease

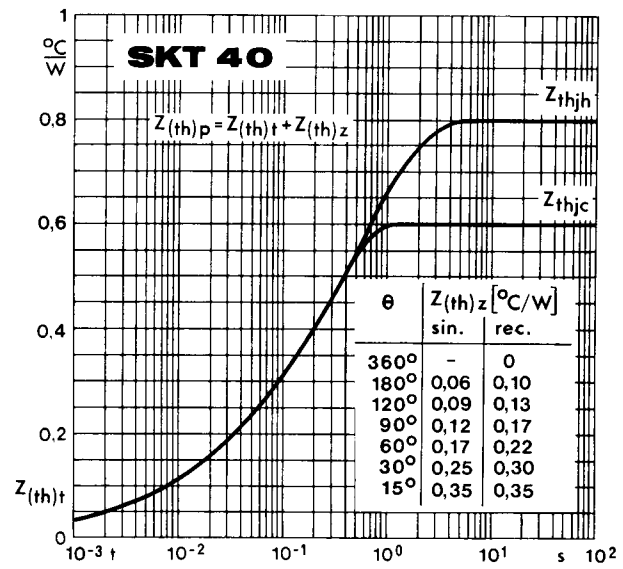


Fig. 4 a Transient thermal impedance vs. time

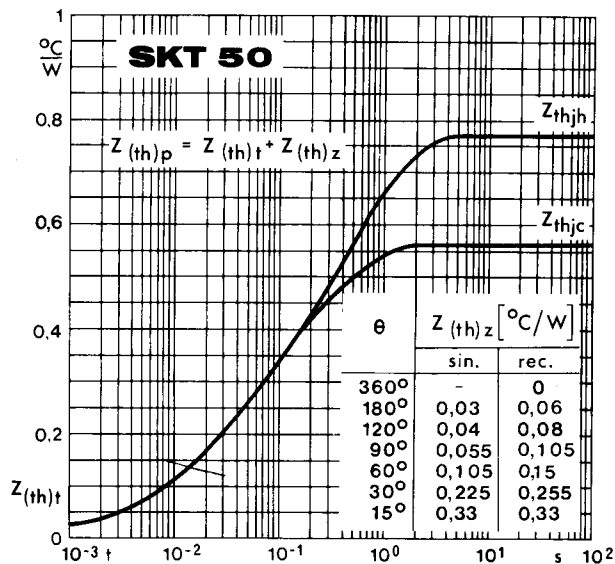


Fig. 4 b Transient thermal impedance vs. time

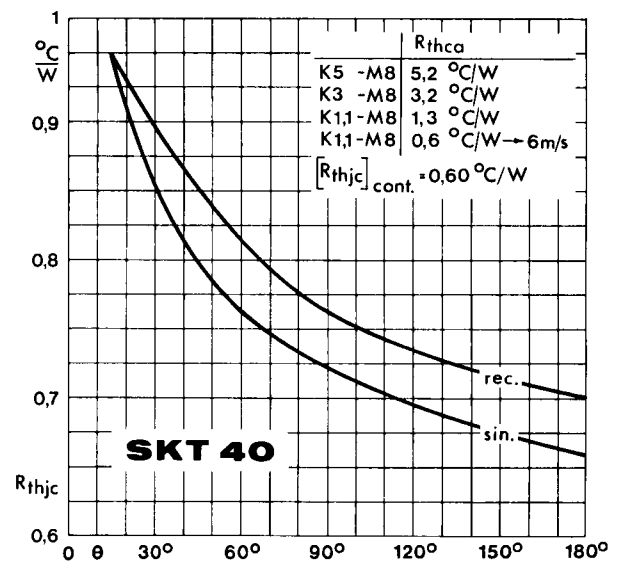


Fig. 5 a Thermal resistance vs. conduction angle

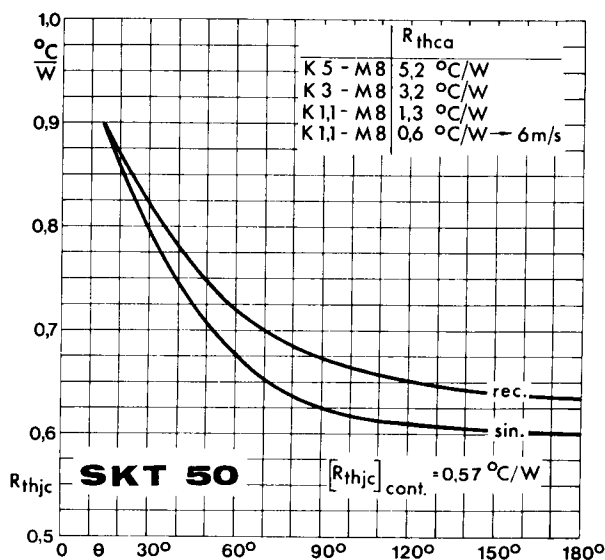


Fig. 5 b Thermal resistance vs. conduction angle

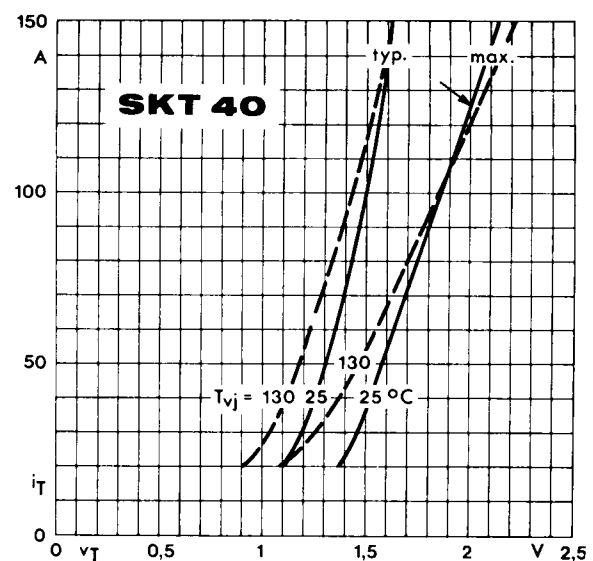


Fig. 6 a On-state characteristics

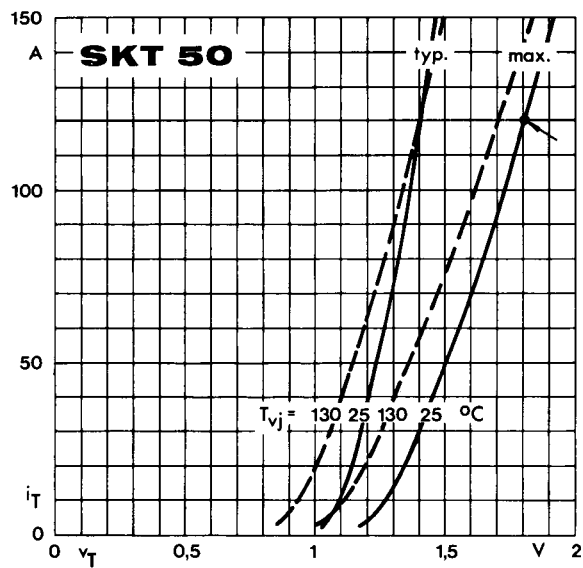


Fig. 6 b On-state characteristics

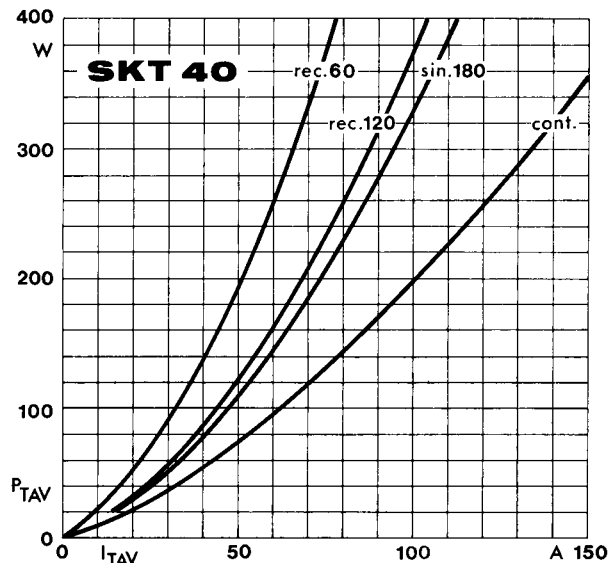


Fig. 7 a Power dissipation vs. on-state current

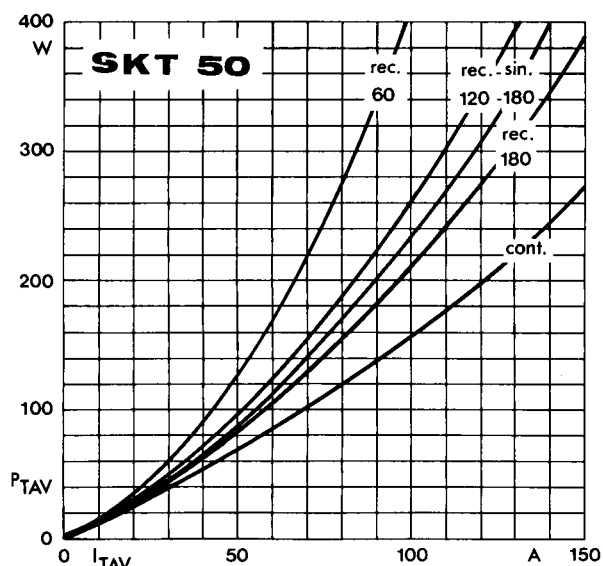


Fig. 7 b Power dissipation vs. on-state current

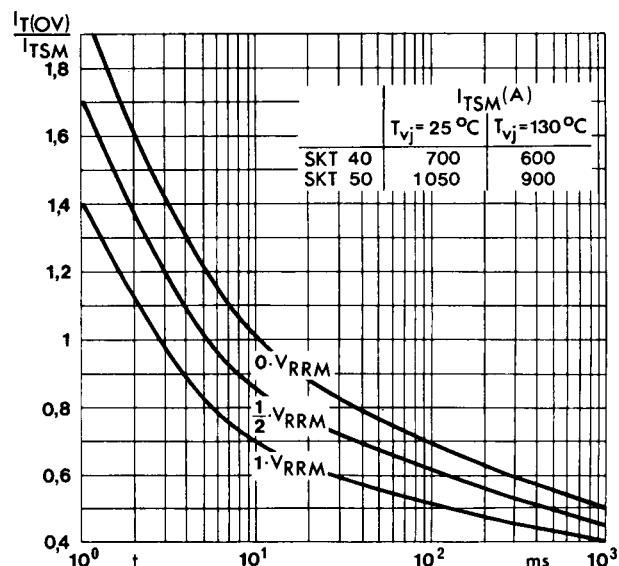


Fig. 8 Surge overload current vs. time

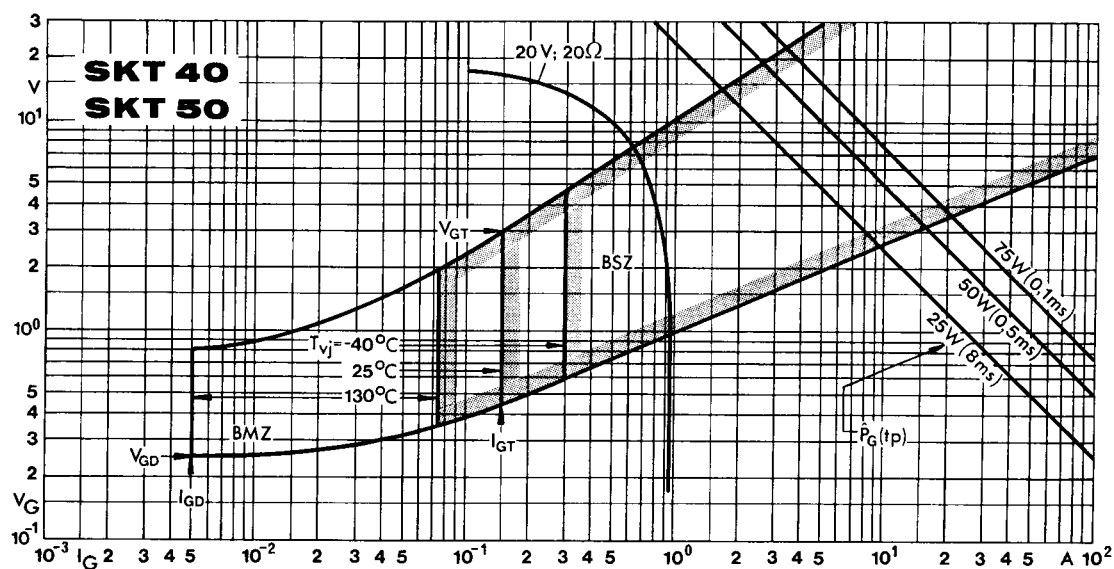


Fig. 9 Gate trigger characteristics

