V_{RSM} V	V_{RRM} V_{DRM} V	$(dv/dt)_{cr}$ V/µs	I_{TRMS} (maximum values for continuous operation) 1400 A I_{TAV} (sin. 180; T_{case} = 55 °C; DSC) 780 A
1900	1800	1000	**SKT 520/18 E**
2100	2000	1000	**SKT 520/20 E**
2300	2200	1000	**SKT 520/22 E**
2500	2400	1000	**SKT 520/24 E**
2900	2800	1000	**SKT 520/28 E**

Symbol	Conditions	SKT 520	Units
I_{TAV}	sin. 180; T_{case} = 85 °C; DSC	520	A
I_{TSM}	T_{vj} = 25 °C	9 000	A
	T_{vj} = 125 °C	8 000	A
i^2t	T_{vj} = 25 °C	405 000	A^2s
	T_{vj} = 125 °C	320 000	A^2s
t_{gd}	T_{vj} = 25 °C I_G = 1 A di_G/dt = 1 A/µs	typ. 1	µs
t_{gr}	$V_D = 0{,}67 \cdot V_{DRM}$	typ. 2	µs
$(di/dt)_{cr}$	f = 50 ... 60 Hz	125	A/µs
I_H	T_{vj} = 25 °C; typ./max.	150 / 500	mA
I_L	T_{vj} = 25 °C; typ./max.	0,5 / 2	A
t_q	T_{vj} = 125 °C; typ.	100 ... 200	µs
V_T	T_{vj} = 25 °C; I_T = 1500 A; max.	2,0	V
$V_{T(TO)}$	T_{vj} = 125 °C	1,2	V
r_T	T_{vj} = 125 °C	0,55	mΩ
I_{DD}; I_{RD}	T_{vj} = 125 °C; $V_{RD} = V_{RRM}$; $V_{DD} = V_{DRM}$	120	mA
V_{GT}	T_{vj} = 25 °C	3	V
I_{GT}	T_{vj} = 25 °C	200	mA
V_{GD}	T_{vj} = 125 °C	0,25	V
I_{GD}	T_{vj} = 125 °C	10	mA
R_{thjc}	cont. DSC	0,038	°C/W
	sin. 180; DSC/SSC	0,040 / 0,082	°C/W
	rec. 120; DSC/SSC	0,045 / 0,093	°C/W
R_{thch}	DSC/SSC	0,007 / 0,014	°C/W
T_{vj}		– 40 ... + 125	°C
T_{stg}		– 40 ... + 130	°C
F	SI units	10 ... 13	kN
	US units	2200 ... 2850	lbs.
w		240	g
Case		B 10	

Thyristors

SKT 520

Features

- Hermetic metal cases with ceramic insulators
- Capsule packages for double sided cooling
- Shallow design with single sided cooling
- International standard cases
- Off-state and reverse voltages up to 2800 V
- Amplifying gate

Typical Applications

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

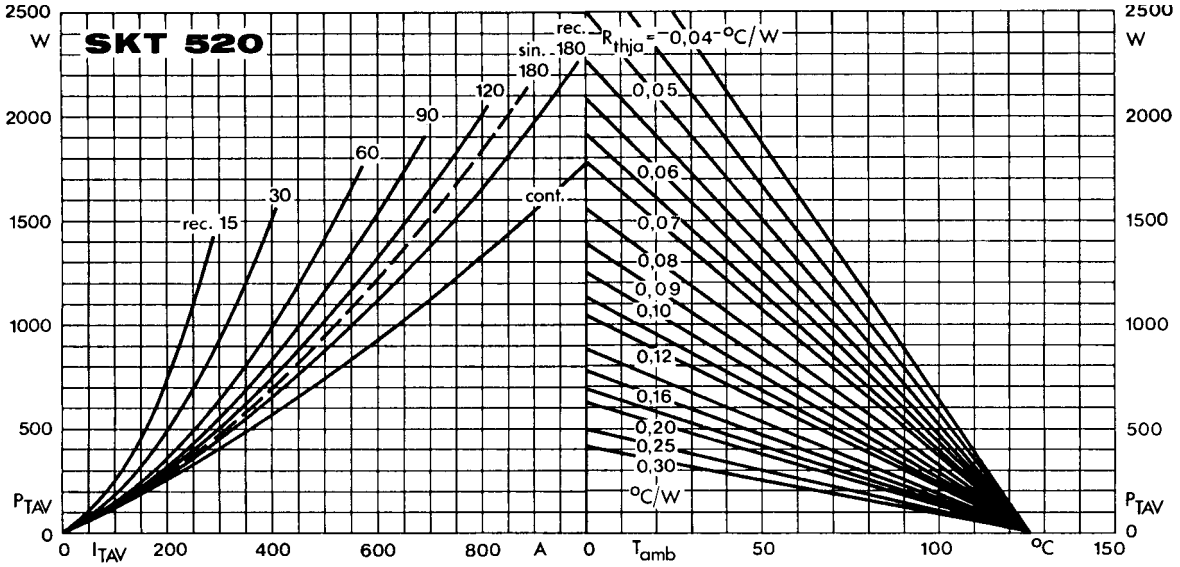


Fig. 1 Power dissipation vs. on-state current and ambient temperature

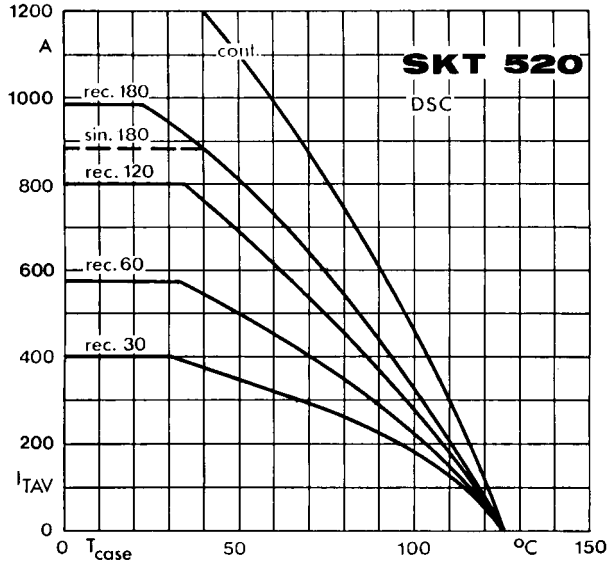


Fig. 2 a Rated on-state current vs. case temperature

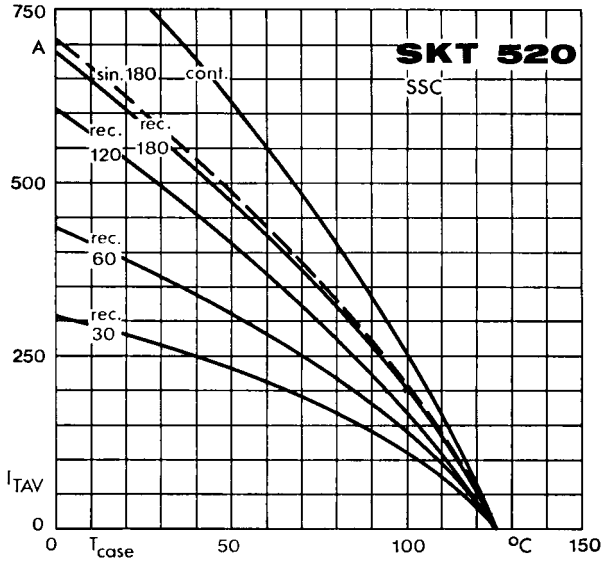


Fig. 2 b Rated on-state current vs. case temperature

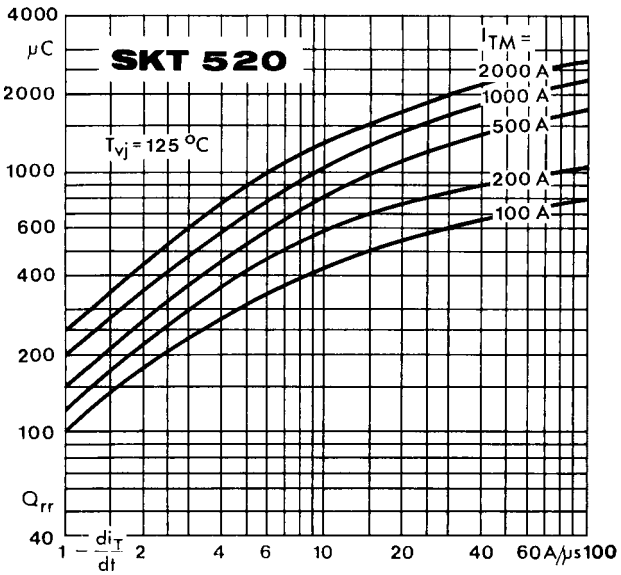
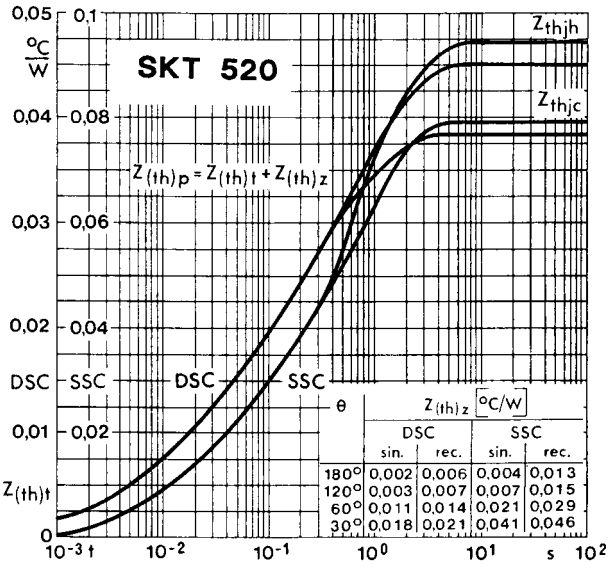


Fig. 3 Recovered charge vs. current decrease



$Z_{(th)z}$ °C/W	DSC		SSC	
θ	sin.	rec.	sin.	rec.
180°	0,002	0,006	0,004	0,013
120°	0,003	0,007	0,007	0,015
60°	0,011	0,014	0,021	0,029
30°	0,018	0,021	0,041	0,046

Fig. 4 Transient thermal impedance vs. time

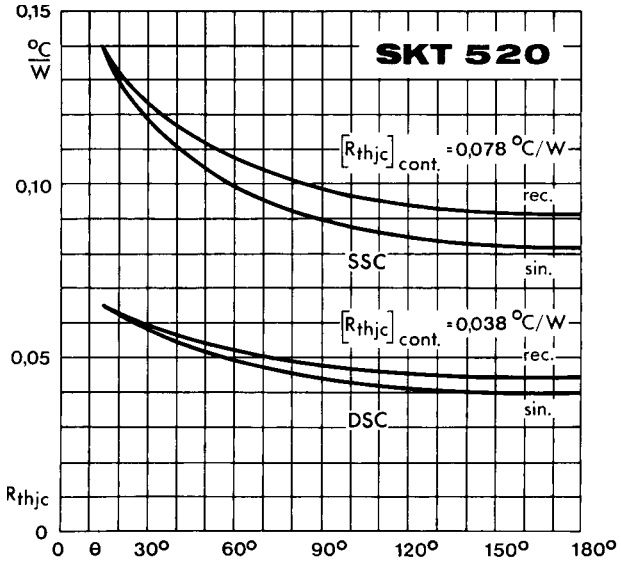


Fig. 5 Thermal resistance vs. conduction angle

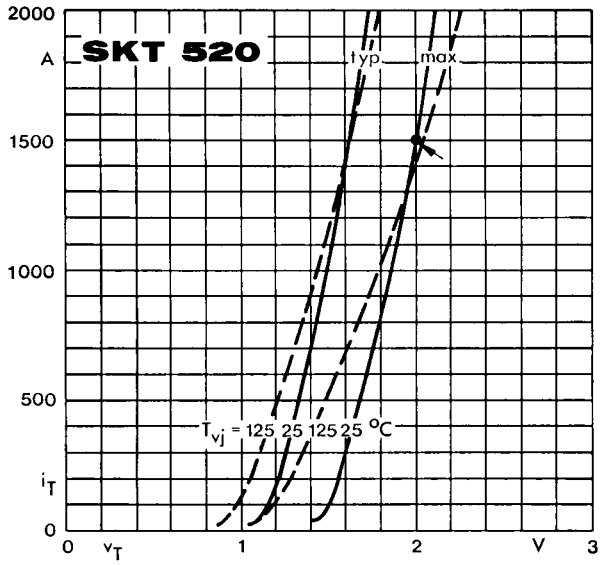


Fig. 6 On-state characteristics

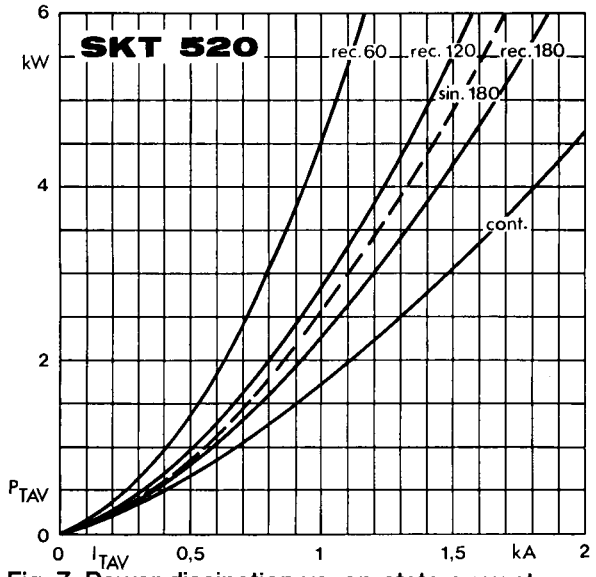


Fig. 7 Power dissipation vs. on-state current

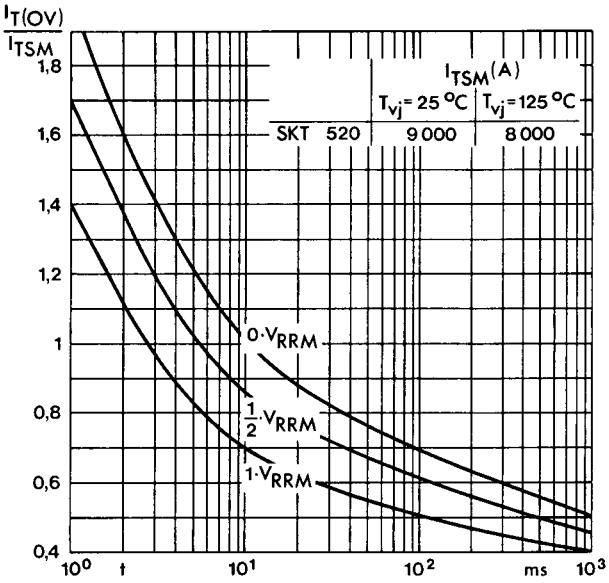


Fig. 8 Surge overload current vs. time

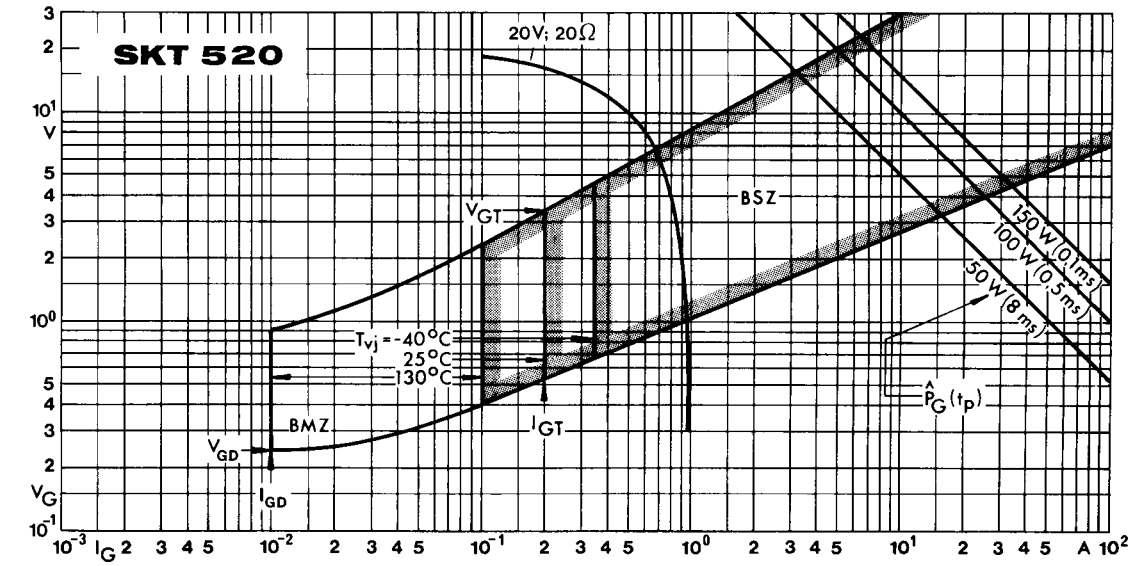
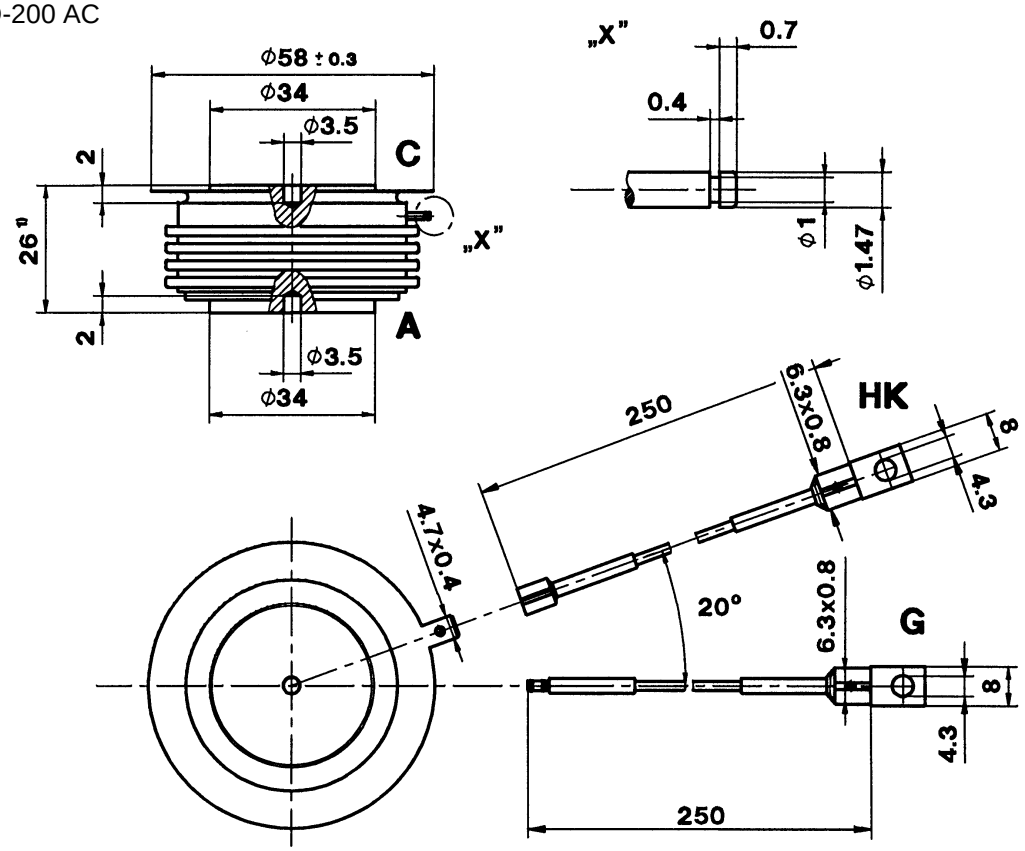


Fig. 9 Gate trigger characteristics

SKT 520
SKT 600
SKT 760

Case B 10

DIN 41814: 153 C 4
JEDEC: TO-200 AC



[1)] SKT 520/24 E
SKT 520/28 E } 27 mm

Dimensions in mm

C: Cathode terminal
A: Anode terminal
G: Gate terminal (yellow sleeve)
HK: Auxiliary cathode terminal (red sleeve)