

T-25-19

V _{RSM}	V _{RRM} V _{DRM}	(dv/dt) _{cr} V/μs	I _{RMS} (maximum values for continuous operation)		
			375 A	450 A	550 A
V	V	V/μs	I _{TAV} (sin. 180; T _{case} = ... °C)		
			240 A (78 °C)	285 A (77 °C)	350 A (85 °C)
500	400	200	SKT 215/04 C	SKT 250/04 C	SKT 300/04 C
700	600	200	SKT 215/06 C	SKT 250/06 C	SKT 300/06 C
900	800	200	SKT 215/08 C	SKT 250/08 C	SKT 300/08 C
1300	1200	200	SKT 215/12 C	SKT 250/12 C	SKT 300/12 C
		1000	SKT 215/12 E	SKT 250/12 E	SKT 300/12 E
1500	1400	1000	SKT 215/14 E	SKT 250/14 E	SKT 300/14 E
1700	1600	200	SKT 215/16 C	SKT 250/16 C	SKT 300/16 C
		1000	SKT 215/16 E	SKT 250/16 E	SKT 300/16 E

Thyristors

**SKT 215
SKT 250
SKT 300**



Symbol	Conditions	SKT 215	SKT 250	SKT 300
I _{TAV}	sin. 180; (T _{case} = ...)	215 A (85 °C)	250 A (85 °C)	300 A (93 °C)
I _{TSM}	T _{vj} = 25 °C T _{vj} = 130 °C	6000 A 5000 A	7000 A 6000 A	11000 A 10000 A
i ² t	T _{vj} = 25 °C T _{vj} = 130 °C	180 000 A ² s 130 000 A ² s	245 000 A ² s 180 000 A ² s	600 000 A ² s 500 000 A ² s
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 · V _{DRM}	typ. 2 μs		
(di/dt) _{cr}	f = 50 ... 60 Hz	100 A/μs		
I _H	T _{vj} = 25 °C; typ./max.	150 mA/250 mA		
I _L	T _{vj} = 25 °C; R _G = 33 Ω; typ./max.	300 mA/600 mA		
t _q	T _{vj} = 130 °C; typ.	50 ... 150 μs		
V _T	T _{vj} = 25 °C; I _r = 800 A; max.	2,05 V	1,65 V	1,45 V
V _{T(RO)}	T _{vj} = 130 °C	1,1 V	1,0 V	0,9 V
r _T	T _{vj} = 130 °C	1,1 mΩ	0,7 mΩ	0,5 mΩ
I _{DD} , I _{RD}	T _{vj} = 130 °C; V _{DD} = V _{DRM} V _{RD} = V _{RRM}	50 mA	50 mA	50 mA
V _{GT}	T _{vj} = 25 °C	3 V		
I _{GT}	T _{vj} = 25 °C	200 mA		
V _{GD}	T _{vj} = 130 °C	0,25 V		
I _{GD}	T _{vj} = 130 °C	10 mA		
R _{thjc}	cont. sin. 180 rec. 120	0,110 °C/W 0,123 °C/W 0,137 °C/W	0,090 °C/W 0,096 °C/W 0,101 °C/W	
R _{thch}		0,015 °C/W		
T _{vj}		-40 ... +130 °C		
T _{stg}		-55 ... +150 °C		
M	SI units US units	60 Nm (UNF: 30 Nm) 530 lb. in. (UNF: 265 lb. in.)		
a		5 · 9,81 m/s ²		
w		450 g		
Case		B 7		

Features

- Hermetic metal cases with ceramic insulators
- Threaded studs ISO M24 x 1,5 or UNF 3/4-16
- High i²t and I_{TSM} values for easy fusing
- 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)

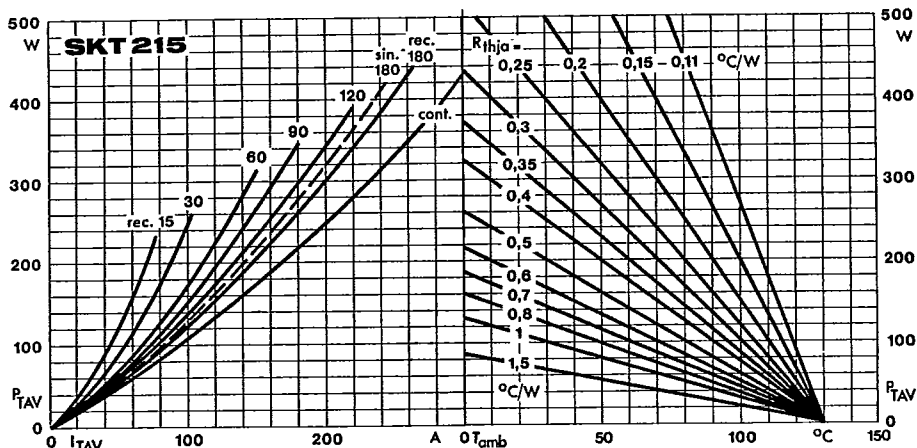


Fig. 1 a Power dissipation vs. on-state current and ambient temperature

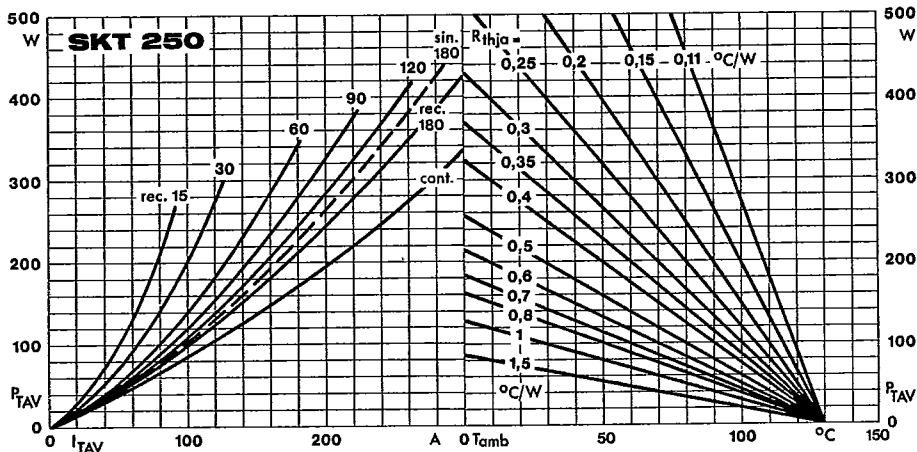


Fig. 1 b Power dissipation vs. on-state current and ambient temperature

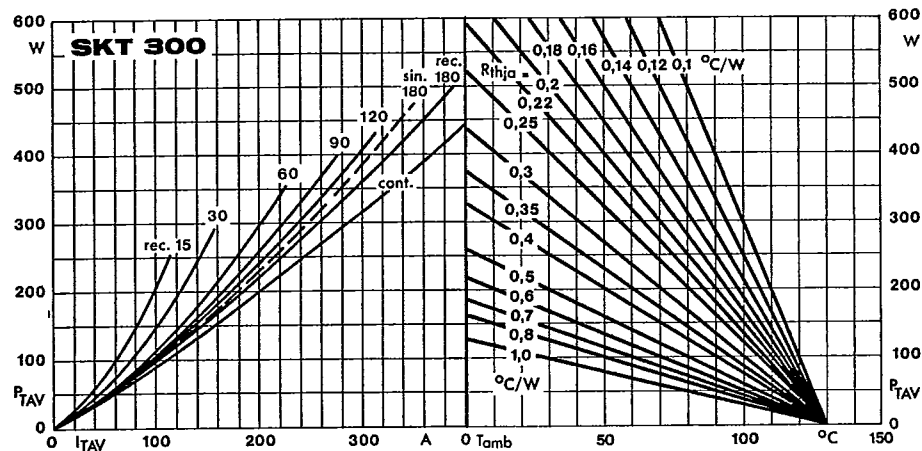


Fig. 1 c Power dissipation vs. on-state current and ambient temperature

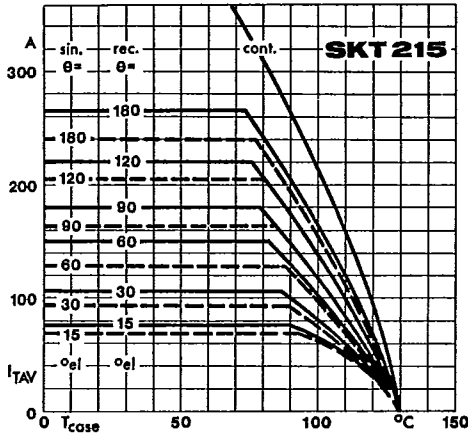


Fig. 2 a Rated on-state current vs. case temperature

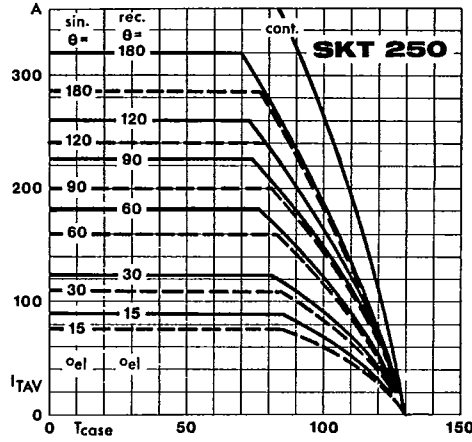


Fig. 2 b Rated on-state current vs. case temperature

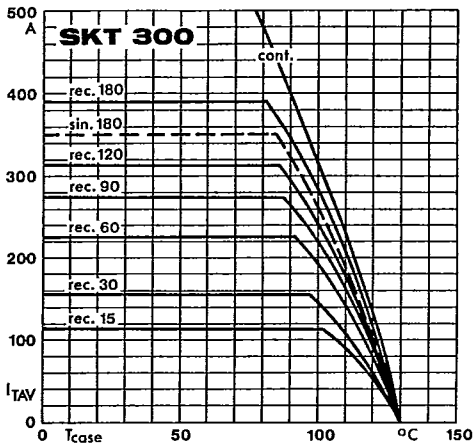


Fig. 2 c Rated on-state current vs. case temperature

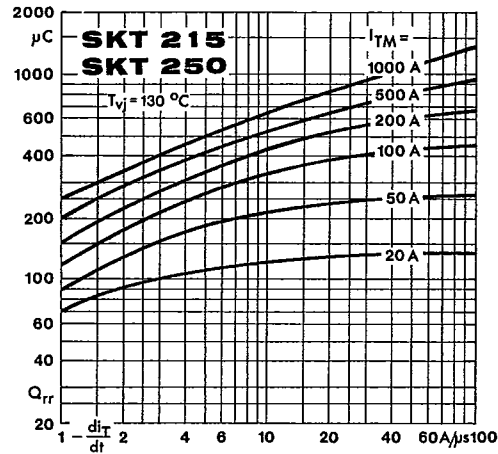


Fig. 3 a Recovered charge vs. current decrease

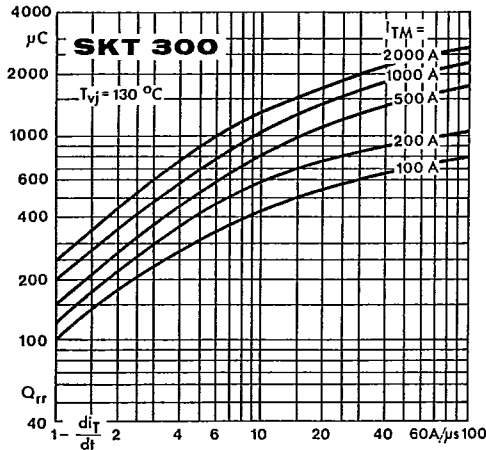


Fig. 3 b Recovered charge vs. current decrease

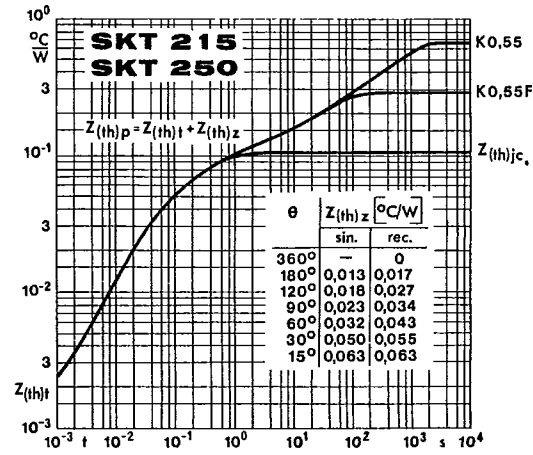


Fig. 4 a Transient thermal impedance vs. time

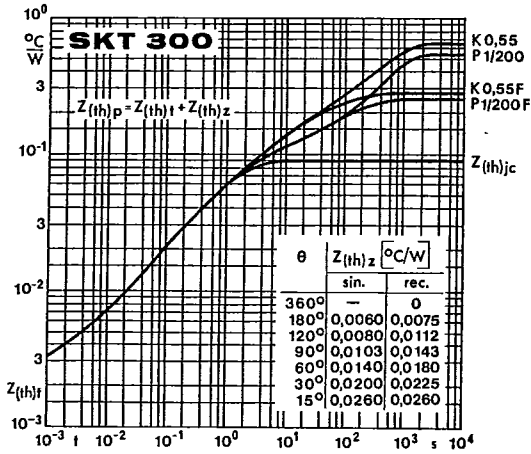


Fig. 4 b Transient thermal impedance vs. time

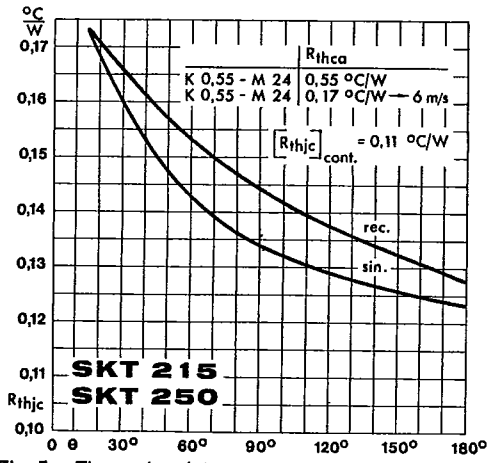


Fig. 5 a Thermal resistance vs. conduction angle

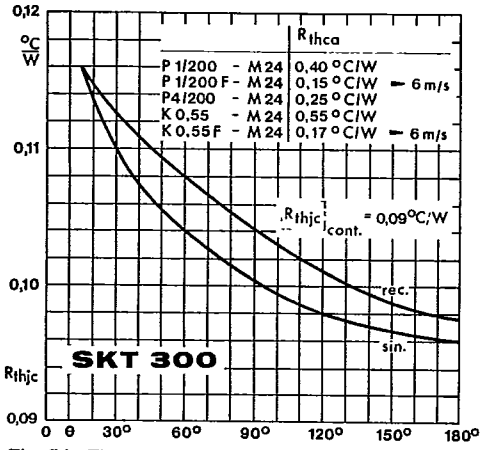


Fig. 5 b Thermal resistance vs. conduction angle

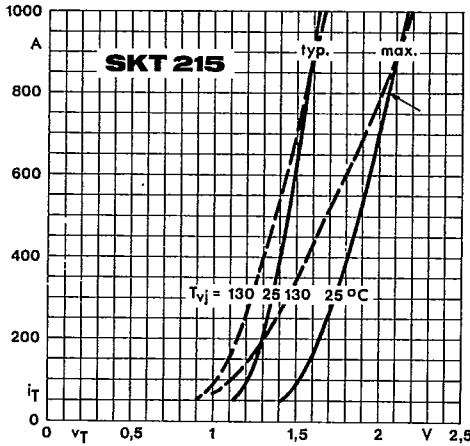


Fig. 6 a On-state characteristics

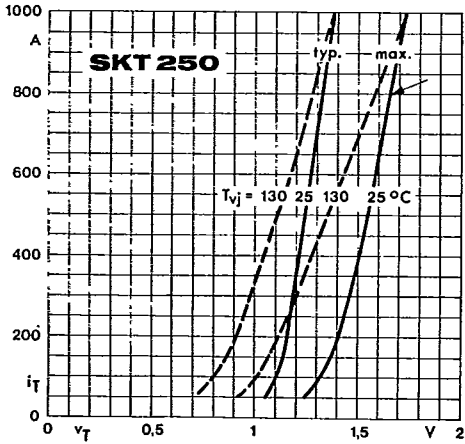


Fig. 6 b On-state characteristics

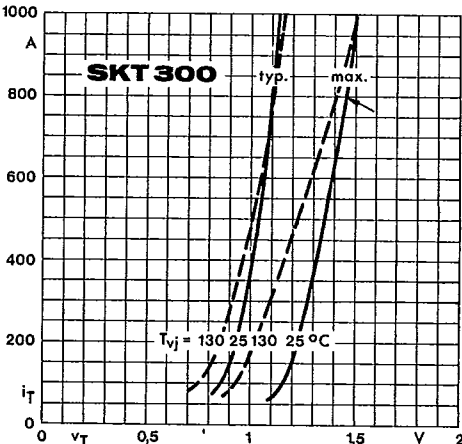


Fig. 6 c On-state characteristics

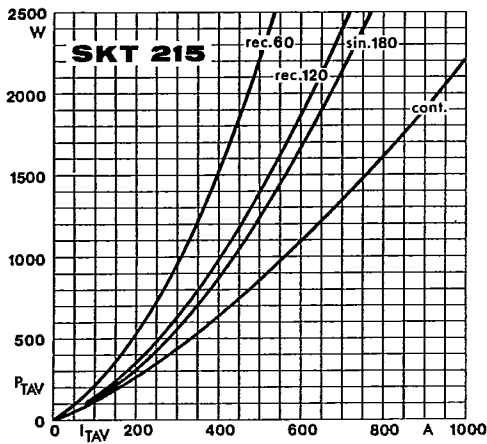


Fig. 7 a Power dissipation vs. on-state current

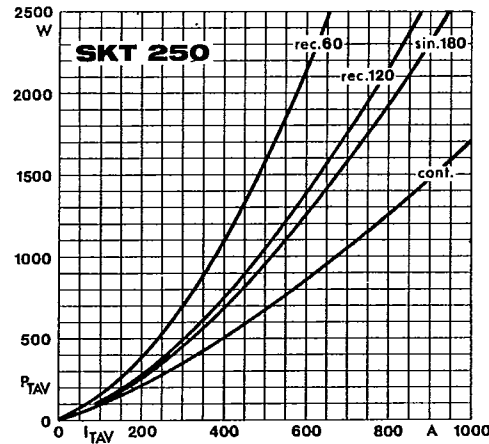


Fig. 7 b Power dissipation vs. on-state current

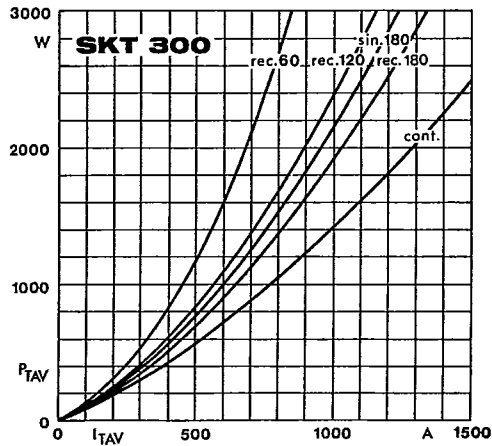


Fig. 7 c Power dissipation vs. on-state current

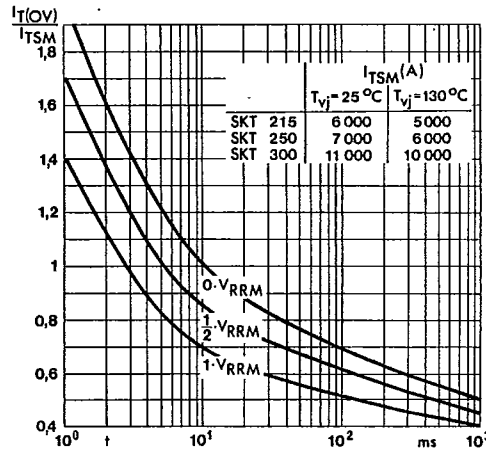


Fig. 8 Surge overload current vs. time

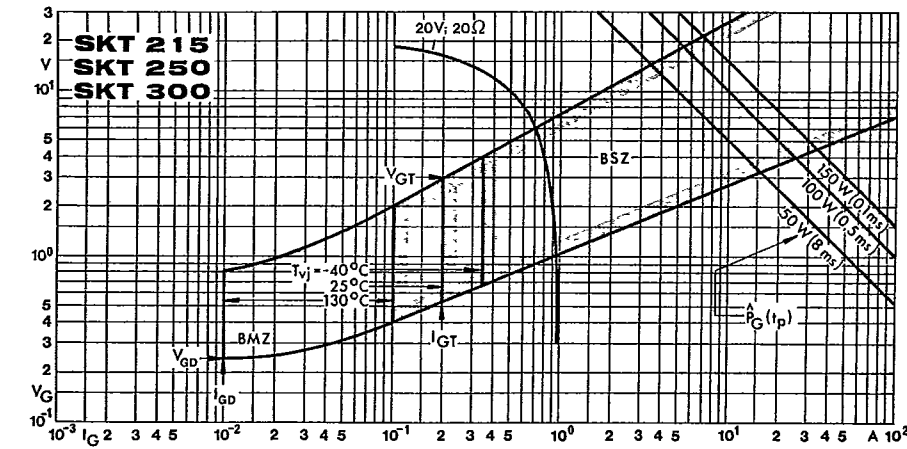


Fig. 9 Gate trigger characteristics

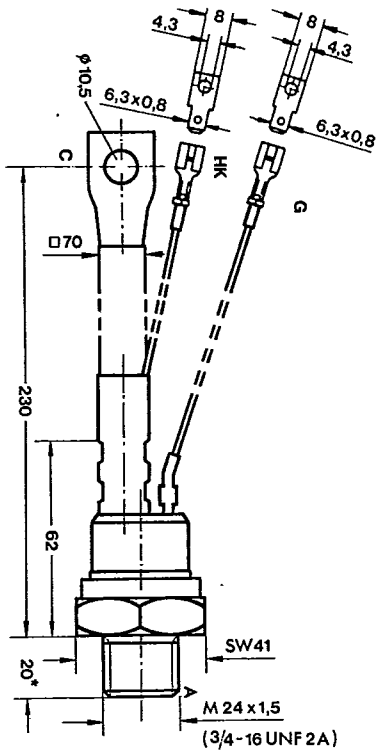
SKT 215
SKT 250
SKT 300

Case B 7

IEC-Publ. 191-2: A 29 MA

DIN 41893: (207 B 4)

JEDEC: TO-209 AD (TO-118)



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