

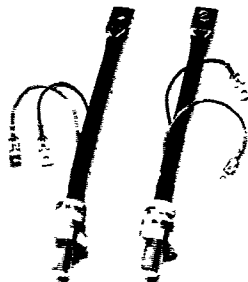
T.25-19

V _{RSM}	V _{RRM} V _{DRM}	$\left(\frac{dv}{dt}\right)_{cr}$	I _T RMS (maximum values for continuous operation)	
			220 A	280 A
			I _T AV (sin. 180; T _{case} = ... °C)	
V	V	V/μs	140 A (80 °C)	178 A (78 °C)
500	400	200	SKT 130/04 C	SKT 160/04 C
700	600	200	SKT 130/06 C*	SKT 160/06 C
900	800	200	SKT 130/08 C	SKT 160/08 C
1300	1200	200	SKT 130/12 C*	SKT 160/12 C*
		1000	SKT 130/12 E	SKT 160/12 E
1500	1400	1000	SKT 130/14 E	SKT 160/14 E
1700	1600	1000	SKT 130/16 E*	SKT 160/16 E*

Thyristors

SKT 130

SKT 160



Symbol	Conditions	SKT 130	SKT 160
I _{TAV}	sin. 180; T _{case} = 85 °C	130 A	160 A
I _{TSM}	T _{vj} = 25 °C	3500 A	4300 A
	T _{vj} = 130 °C	3000 A	3750 A
i ² t	T _{vj} = 25 °C	61 000 A ² s	92 500 A ² s
	T _{vj} = 130 °C	45 000 A ² s	70 000 A ² s
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 · V _{DRM}	typ. 2 μ s	
(di/dt) _{cr}	f = 50 ... 60 Hz	100 A/ μ s	
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.	120 μ s	
V _T	T _{vj} = 25 °C; I _T = 500 A; max.	2,25 V	1,75 V
V _{T(RO)}	T _{vj} = 130 °C	1,2 V	1,0 V
r _T	T _{vj} = 130 °C	2,2 m Ω	1,5 m Ω
I _{DD} , I _{RD}	T _{vj} = 130 °C; V _{DD} = V _{DRM} ; V _{RD} = V _{RRM}	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.	0,16 °C/W	
	sin. 180/rec. 120	0,18/0,20 °C/W	
R _{thch}		0,03 °C/W	
T _{vj}		-40 ... +130 °C	
T _{stg}		-55 ... +150 °C	
M	SI units	30 Nm	
	US units	265 lb. in.	
a		5·9,81 m/s ²	
w		2,10 g	
Case		B 6	

Features

- Hermetic metal cases with ceramic insulators
- Threaded studs ISO M16 x 1,5 or UNF 3/4-16
- 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

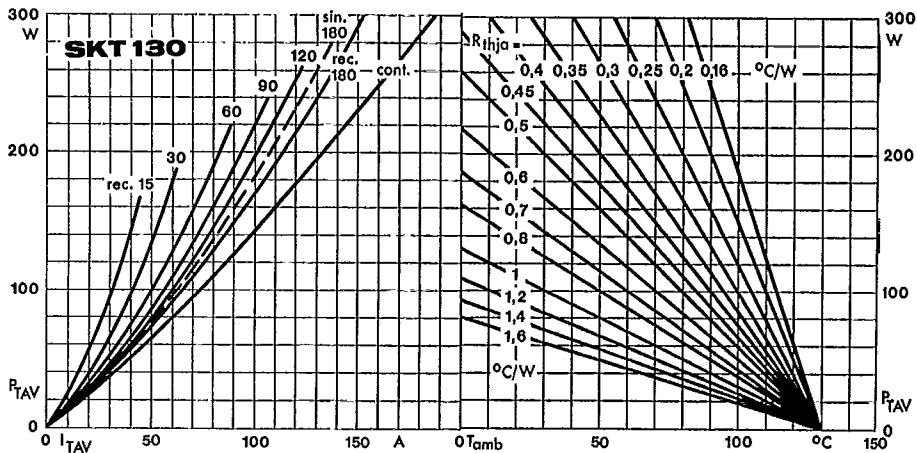


Fig. 1 a Power dissipation vs. on-state current and ambient temperature

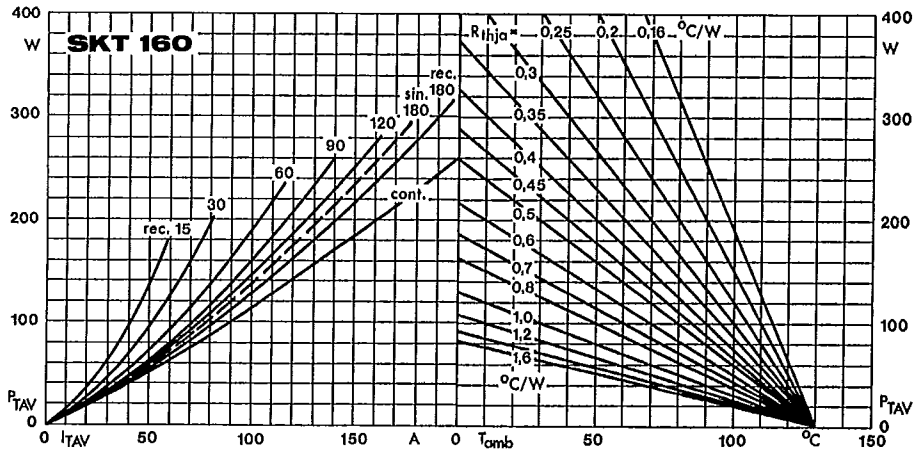


Fig. 1 b Power dissipation vs. on-state current and ambient temperature

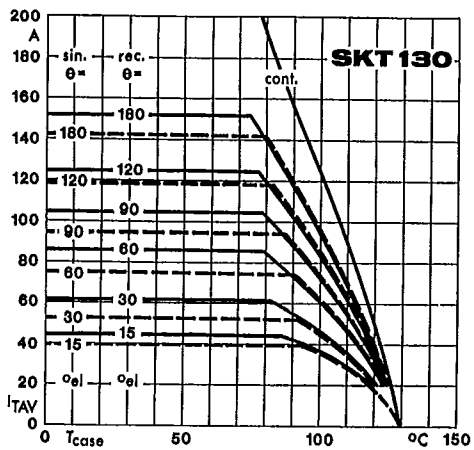


Fig. 2 a Rated on-state current vs. case temperature

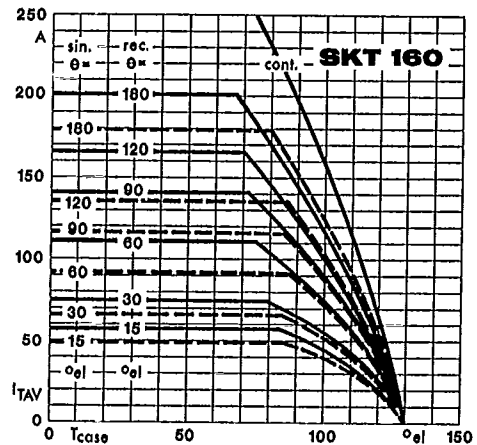


Fig. 2 b Rated on-state current vs. case temperature

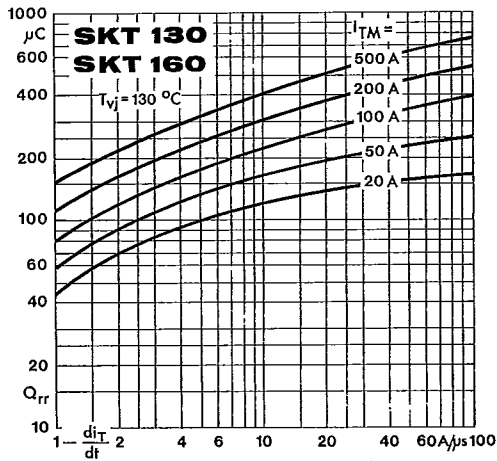


Fig. 3 Recovered charge vs. current decrease

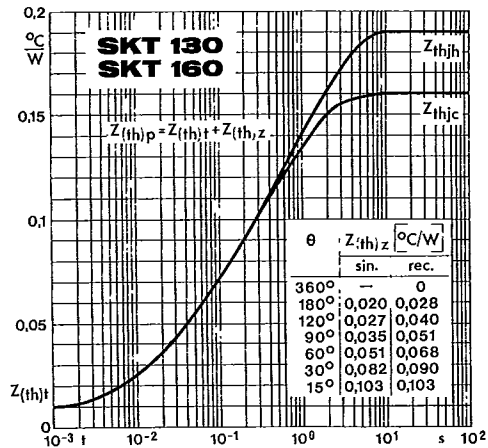


Fig. 4 Transient thermal impedance vs. time

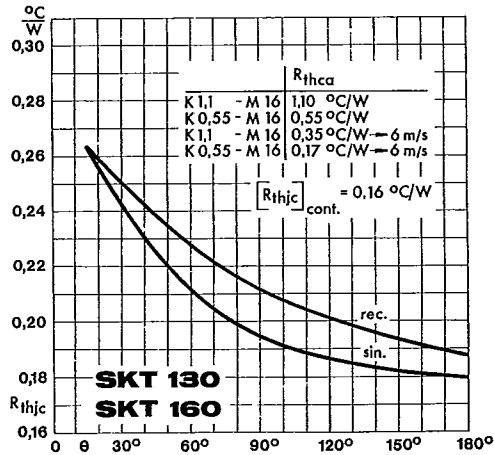


Fig. 5 Thermal resistance vs. conduction angle

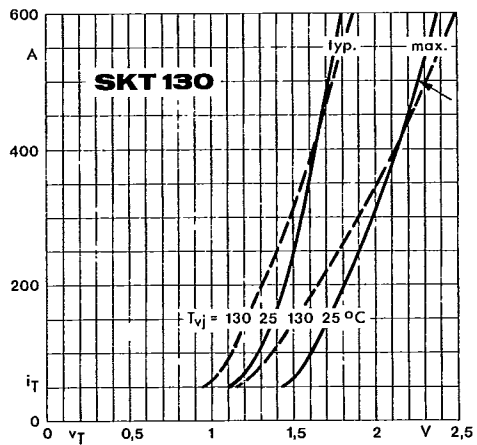


Fig. 6 a On-state characteristics

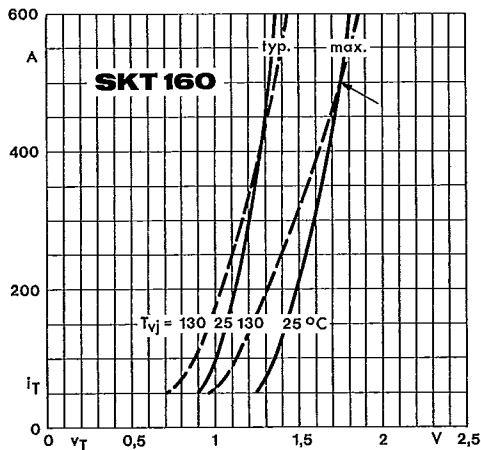


Fig. 6 b On-state characteristics

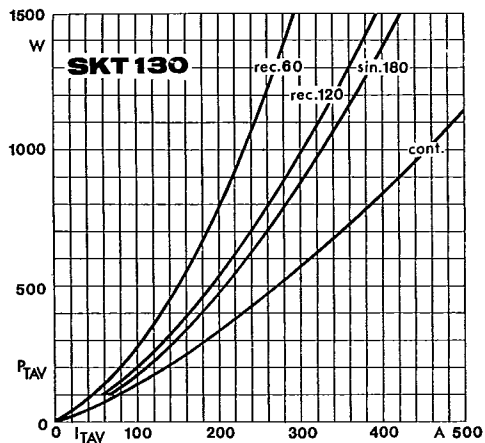


Fig. 7 a Power dissipation vs. on-state current

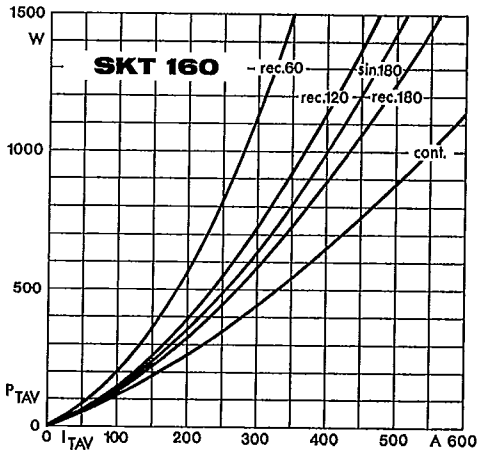


Fig. 7 b Power dissipation vs. on-state current

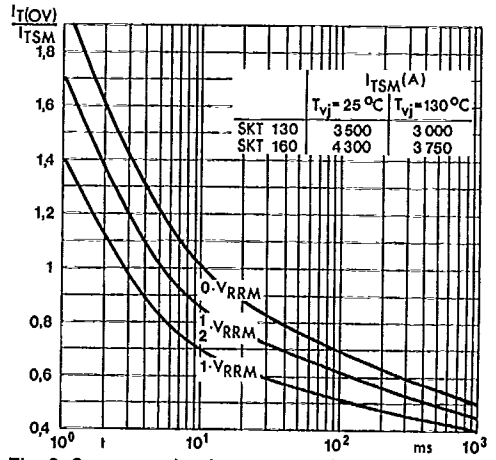


Fig. 8 Surge overload current vs. time

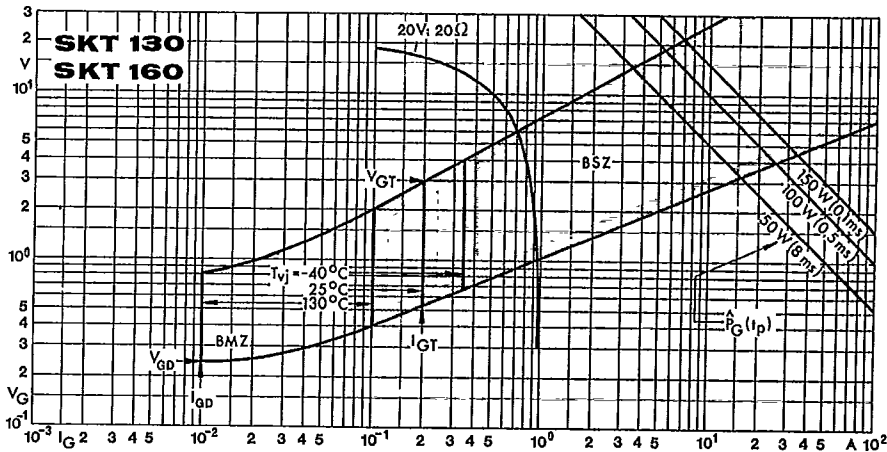


Fig. 9 Gate trigger characteristics