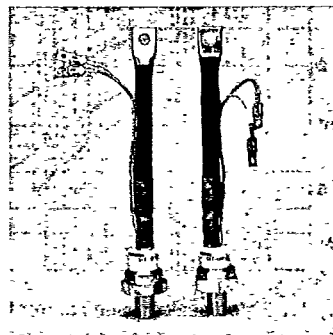


T-25-19

V _{DRM} V _{RRM}	t _q (T _{vj} = 125 °C)	I _{TRMS} (maximum values for continuous operation)	
		240 A	275 A
V	μs	I _{TAV} (sin. 180; T _{case} = ... °C; 50 Hz)	
		110 A (85 °C)	140 A (85 °C)
600	20	SKT 110 F 06 DT	SKT 140 F 06 DT
800	20	SKT 110 F 08 DT	
1000	25	SKT 110 F 10 DU	SKT 140 F 10 DU
	30	SKT 110 F 10 DV	
1200	20	SKT 110 F 12 DT*	SKT 140 F 12 DU SKT 140 F 12 DV
	25		
	30		

Fast Thyristors with Amplifying Gate**SKT 110 F**
SKT 140 F

Symbol	Conditions	SKT 110 F	SKT 140 F
I _{TM}	sin. 180; T _{case} = 60 °C; 50 Hz	480 A	550 A
I _{TSM}	T _{vj} = 25 °C	3000 A	3750 A
	T _{vj} = 125 °C	2500 A	3200 A
i ² _T	T _{vj} = 25 °C	45 000 A ² s	70 000 A ² s
	T _{vj} = 125 °C	31 500 A ² s	50 000 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. 1 μs	
(di/dt) _{cr}	non-repetitive f = 50 ... 60 Hz	800 A/μs 250 A/μs	
(dv/dt) _{cr}	T _{vj} = 125 °C	500 V/μs	
I _H	T _{vj} = 25 °C; typ./max.	200 mA/300 mA	
I _L	T _{vj} = 25 °C; R _G = 33 Ω; typ./max.	1 A/1,5 A	
V _T	T _{vj} = 25 °C; I _T = 500 A; max.	2,65 V	2,15 V
V _{T(TO)}	T _{vj} = 125 °C	1,6 V	1,2 V
r _T	T _{vj} = 125 °C	2 mΩ	1,6 mΩ
I _{DD} , I _{RD}	T _{vj} = 125 °C; V _{DD} = V _{DRM} ; V _{RD} = V _{RRM}	70 mA	70 mA
V _{GT}	T _{vj} = 25 °C	5 V	
I _{GT}	T _{vj} = 25 °C	200 mA	
V _{GD}	T _{vj} = 125 °C	0,25 V	
I _{GD}	T _{vj} = 125 °C	5 mA	
R _{thjc}	cont.	0,16 °C/W	
R _{thch}		0,03 °C/W	
T _{vj}		-40 ... +125 °C	
T _{stg}		-40 ... +125 °C	
M	SI units	30 Nm	
	US units	265 lb. in.	
w		210 g	
Case	→ page B 4-39	B 6	

Features

- Easy to mount threaded stud cases
- Hermetic ceramic to metal sealing
- Gold diffused silicon chips
- Amplifying gates

Typical Applications

- Self-commutated inverters
- DC choppers
- Motor speed control
- Inductive heating
- Uninterruptible power supplies
- Electronic welders
- General power switching applications

* Available in limited quantities

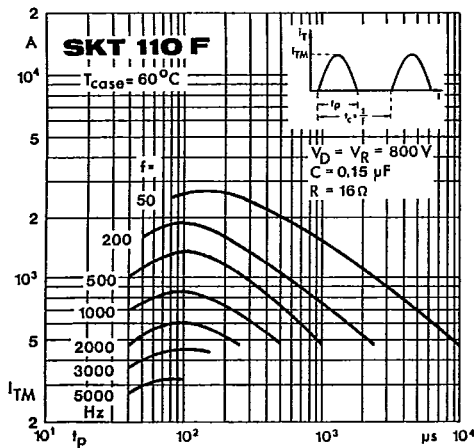


Fig. 1 a Rated peak on-state current vs. pulse duration

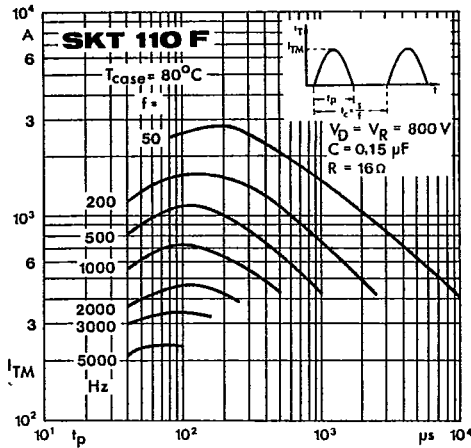


Fig. 1 b Rated peak on-state current vs. pulse duration

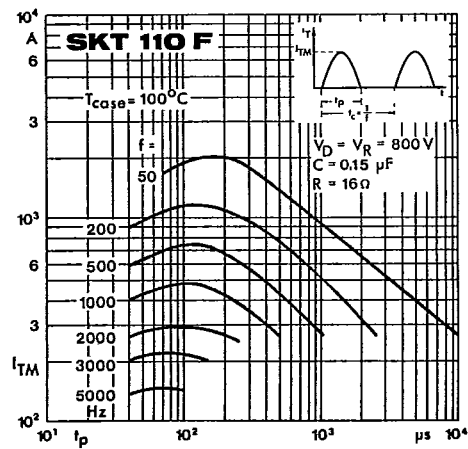


Fig. 1 c Rated peak on-state current vs. pulse duration

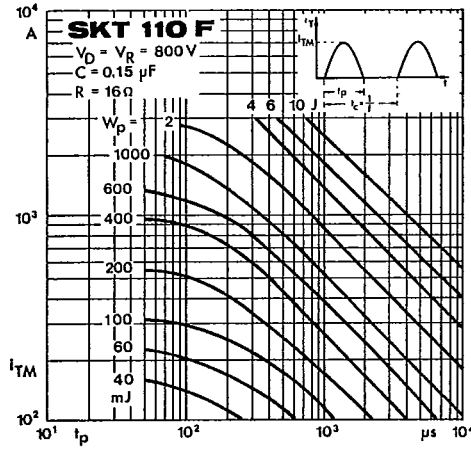


Fig. 2 Energy dissipation per pulse

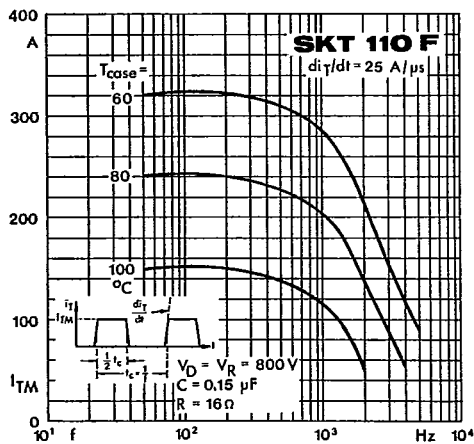


Fig. 3 a Rated peak on-state current vs. pulse duration

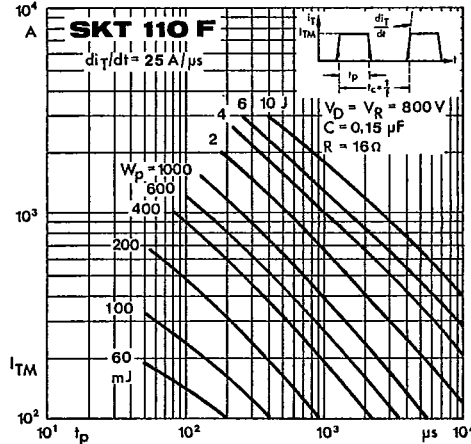


Fig. 4 a Energy dissipation per pulse

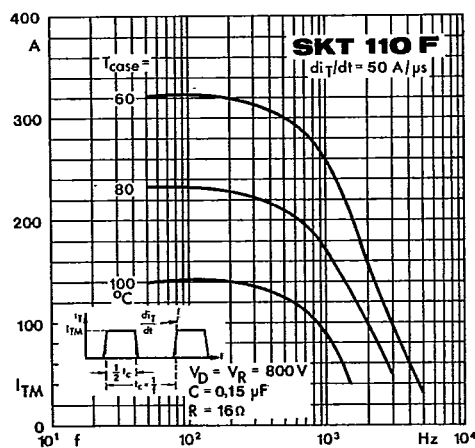


Fig. 3 b Rated peak on-state current vs. pulse duration

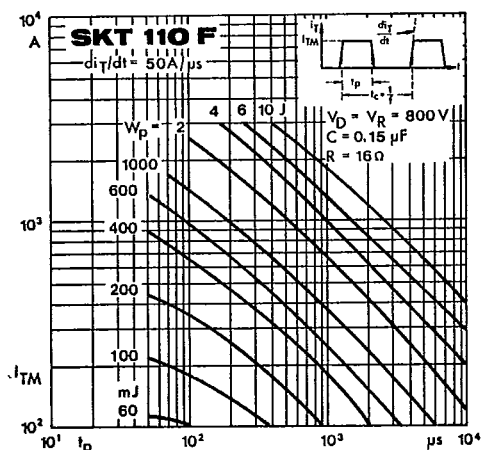


Fig. 4 b Energy dissipation per pulse

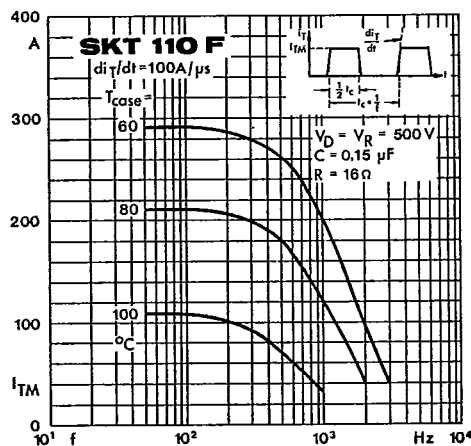


Fig. 3 c Rated peak on-state current vs. pulse duration

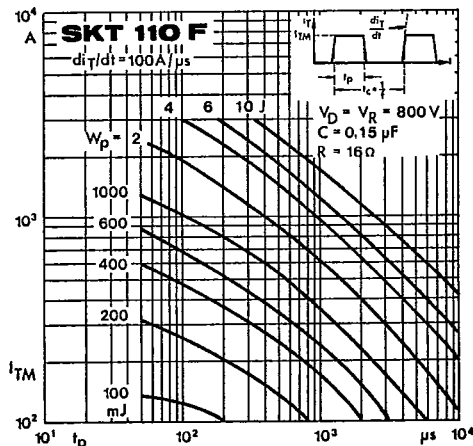


Fig. 4 c Energy dissipation per pulse

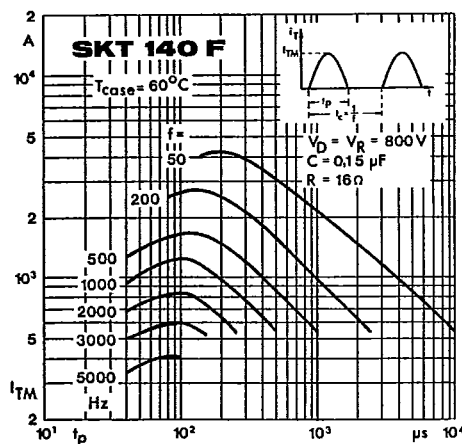


Fig. 1 a Rated peak on-state current vs. pulse duration

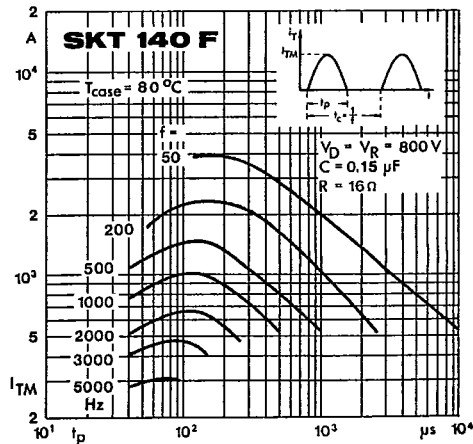


Fig. 1 b Rated peak on-state current vs. pulse duration

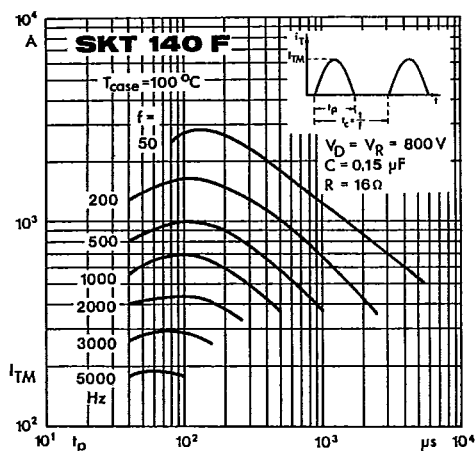


Fig. 1 c Rated peak on-state current vs. pulse duration

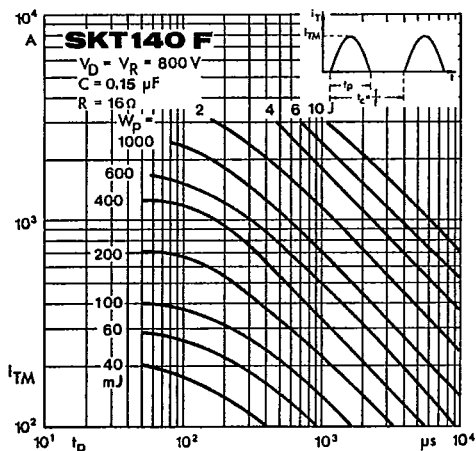


Fig. 2 Energy dissipation per pulse

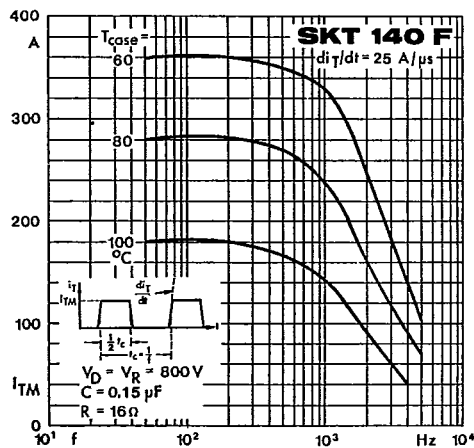


Fig. 3 a Rated peak on-state current vs. pulse duration

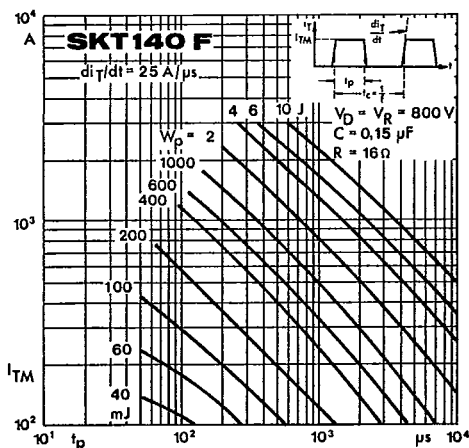


Fig. 4 a Energy dissipation per pulse

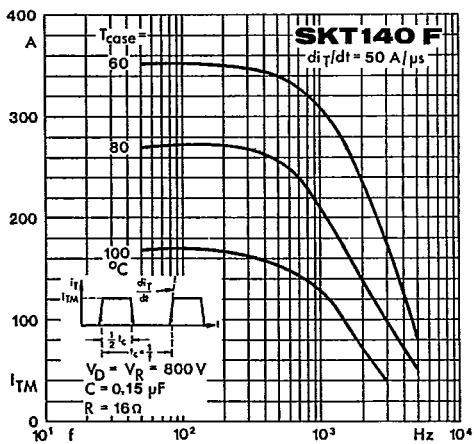


Fig. 3 b Rated peak on-state current vs. pulse duration

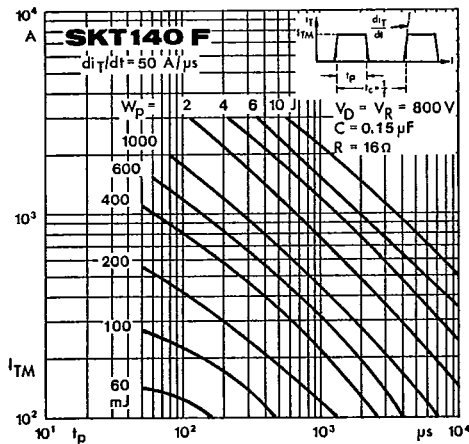


Fig. 4 b Energy dissipation per pulse

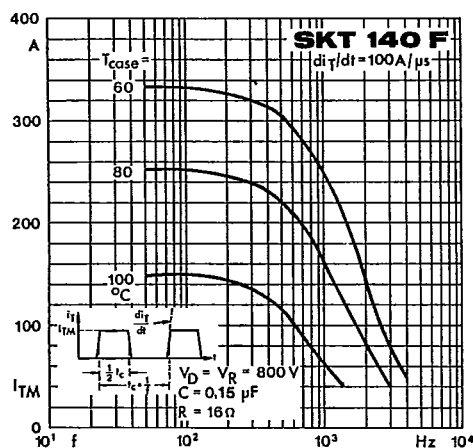


Fig. 3 c Rated peak on-state current vs. pulse duration

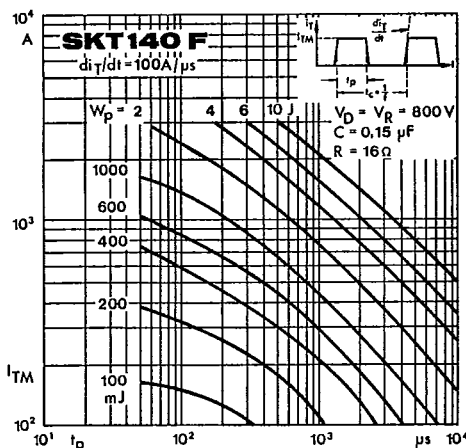


Fig. 4 c Energy dissipation per pulse

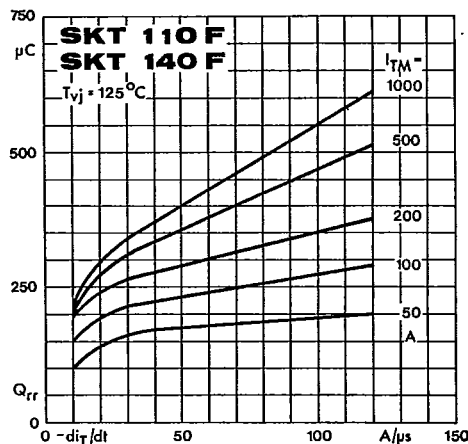


Fig. 5 Recovered charge vs. current decrease

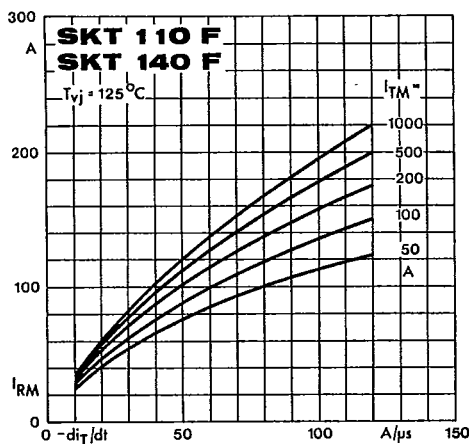


Fig. 6 Peak recovery current vs. current decrease

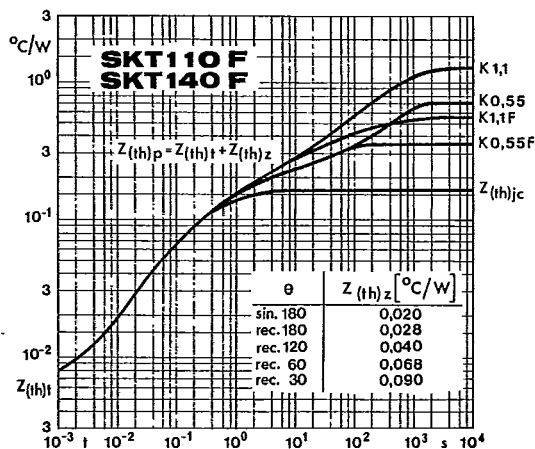


Fig. 7 Transient thermal impedance vs. time

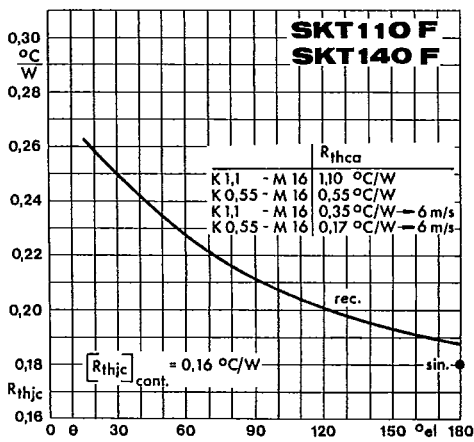


Fig. 8 Thermal resistance vs. conduction angle

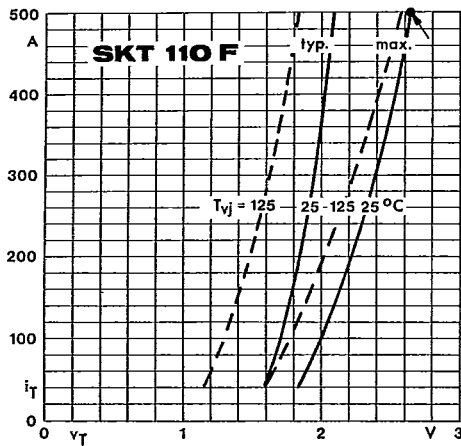


Fig. 9 a On-state characteristics

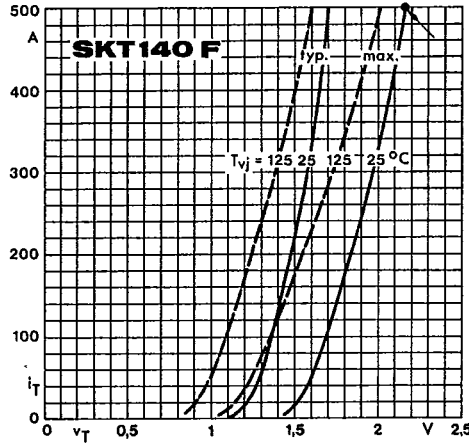


Fig. 9 b On-state characteristics

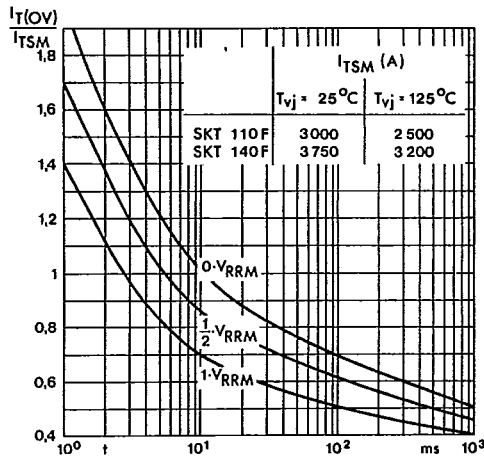


Fig. 10 Surge overload current vs. time

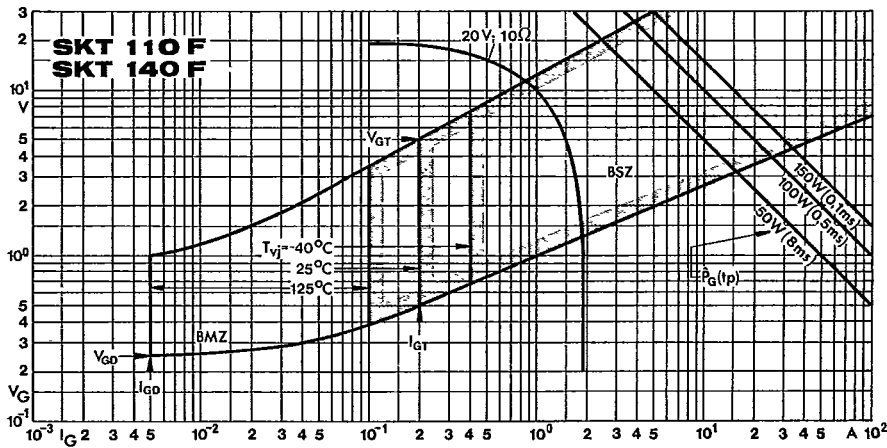


Fig. 11 Gate trigger characteristics