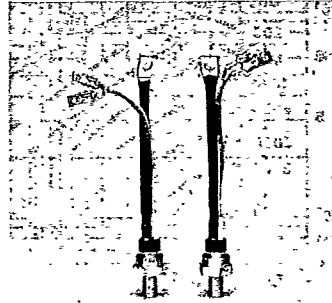


T-25-17

V _{DRM} V _{RRM}	t _q (T _{vj} = 125 °C)	I _{TRMS} (maximum values for continuous operation)	
		115 A	150 A
V	μs	I _{TA} V (sin. 180; T _{case} = ... °C; 50 Hz) 45 A (92 °C)	70 A (85 °C)
600	15 20	SKT 45 F 06 DS	SKT 70 F 06 DT
800	15 20 20	SKT 45 F 08 DS SKT 45 F 08 DT	SKT 70 F 08 DT SKT 70 F 08 DT UNF*
1000	15 20 20 25	SKT 45 F 10 DS SKT 45 F 10 DT	SKT 70 F 10 DT SKT 70 F 10 DT UNF* SKT 70 F 10 DU
1200	15 20 20 25 30	SKT 45 F 12 DS* SKT 45 F 12 DT SKT 45 F 12 DU	SKT 70 F 12 DT SKT 70 F 12 DT UNF* SKT 70 F 12 DV

Fast Thyristors with Amplifying Gate

SKT 45 F
SKT 70 F



Symbol	Conditions	SKT 45 F	SKT 70 F
I _{TM}	sin. 180; T _{case} = 60 °C; 50 Hz	230 A	300 A
I _{RSM}	T _{vj} = 25 °C T _{vj} = 125 °C	1300 A 1100 A	1700 A 1450 A
i ² t	T _{vj} = 25 °C T _{vj} = 125 °C	8400 A ² s 6000 A ² s	14500 A ² s 10500 A ² s
t _{gd} t _{gr} (di/dt) _{cr} (dv/dt) _{cr}	T _{vj} = 25 °C; I _G = 1 A; di _G /dt = 1 A/μs V _D = 0,67 · V _{DRM} non-repetitive f = 50 ... 60 Hz T _{vj} = 125 °C	typ. 1 μs typ. 1 μs 600 A/μs 200 A/μs 500 V/μs	
I _H	T _{vj} = 25 °C; typ./max.	180 mA/300 mA	
I _L	T _{vj} = 25 °C; R _G = 33 Ω; typ./max.	0,6 A/1 A	
V _T	T _{vj} = 25 °C; I _T = 300 A; max.	3,65 V	2,65 V
V _{T(RO)}	T _{vj} = 125 °C	1,8 V	1,6 V
r _T	T _{vj} = 125 °C	6 mΩ	3 mΩ
I _{DD} , I _{RD}	T _{vj} = 125 °C; V _{DD} = V _{DRM} ; V _{RD} = V _{RRM}	50 mA	50 mA
V _{GT}	T _{vj} = 25 °C	5 V	
I _{GT}	T _{vj} = 25 °C	150 mA	
V _{GD}	T _{vj} = 125 °C	2,5 V	
I _{GD}	T _{vj} = 125 °C	6 mA	
R _{thjc} R _{thch} T _{vj} T _{stg}	cont.	0,25 °C/W 0,08 °C/W -40 ... +125 °C -40 ... +125 °C	
M	SI units US units	10 Nm 90 lb. in.	
w		80 g	
Case	→ page B 4-38	B 5	B 5 B 5 UNF

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

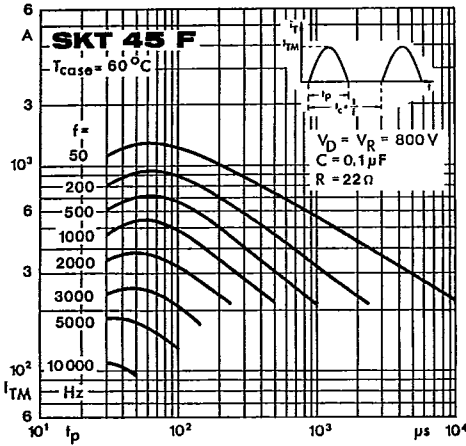


Fig. 1 a Rated peak on-state current vs. pulse duration

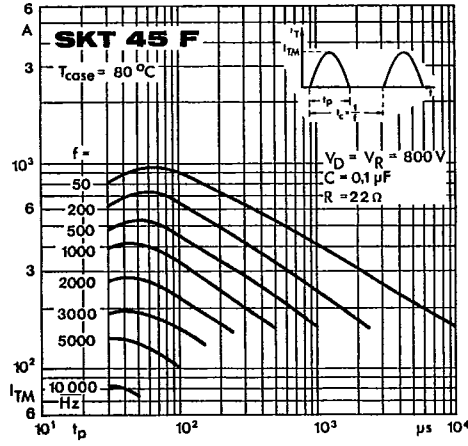


Fig. 1 b Rated peak on-state current vs. pulse duration

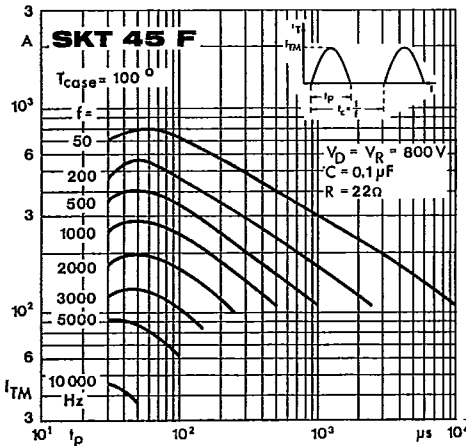


Fig. 1 c Rated peak on-state current vs. pulse duration



Fig. 2 Energy dissipation per pulse

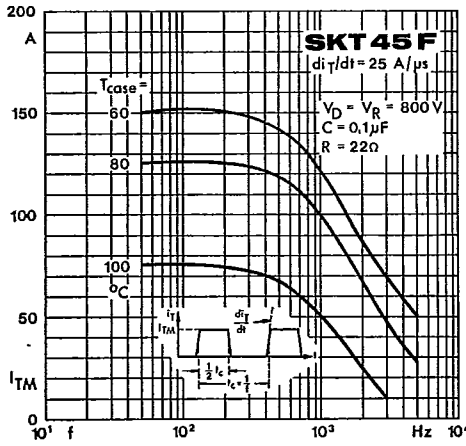


Fig. 3 a Rated peak on-state current vs. pulse duration

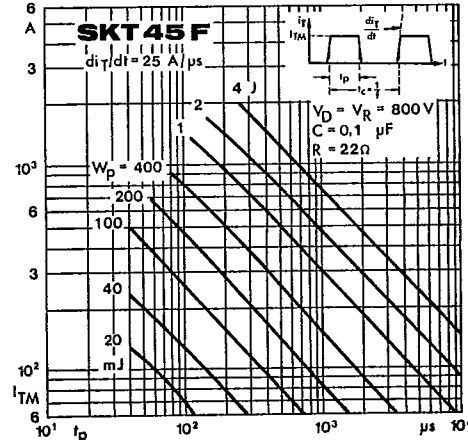


Fig. 4 a Energy dissipation per pulse

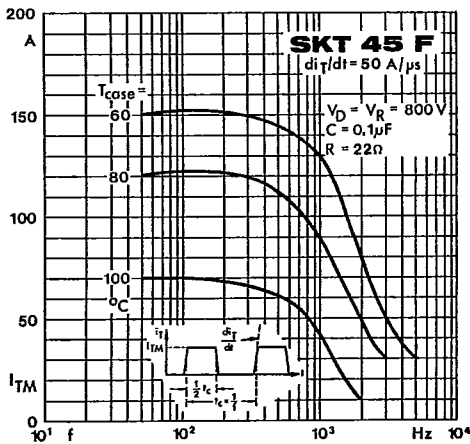


Fig. 3 b Rated peak on-state current vs. pulse duration

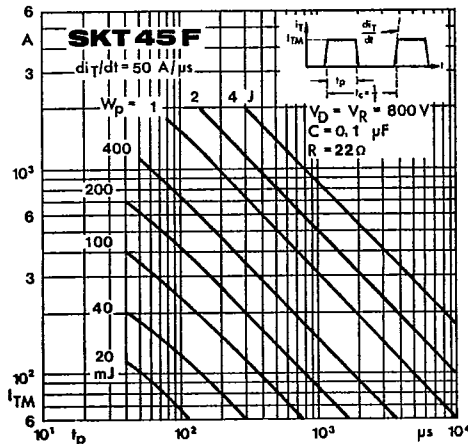


Fig. 4 b Energy dissipation per pulse

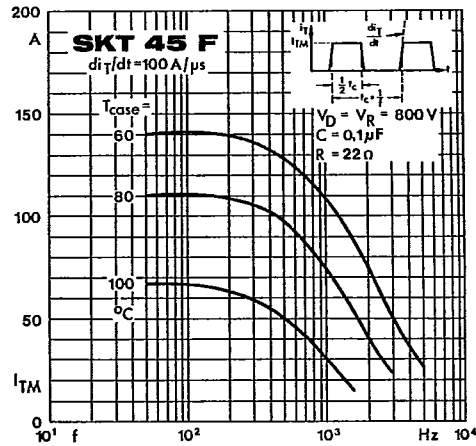


Fig. 3 c Rated peak on-state current vs. pulse duration

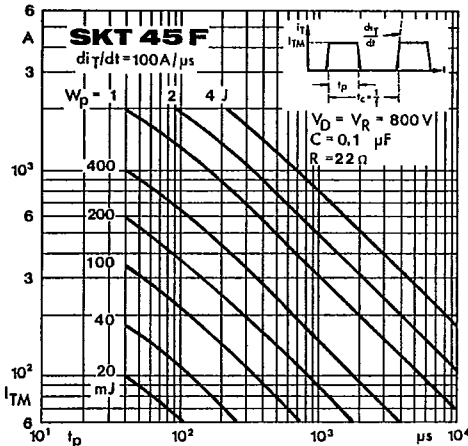


Fig. 4 c Energy dissipation per pulse

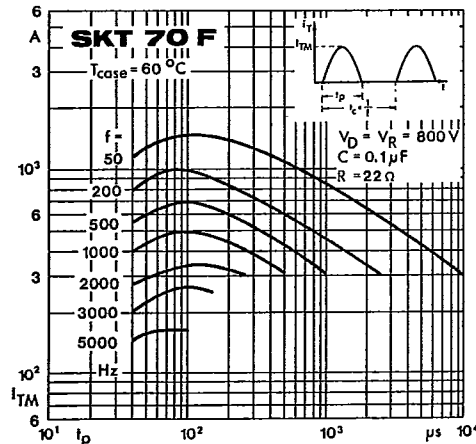


Fig. 1 a Rated peak on-state current vs. pulse duration

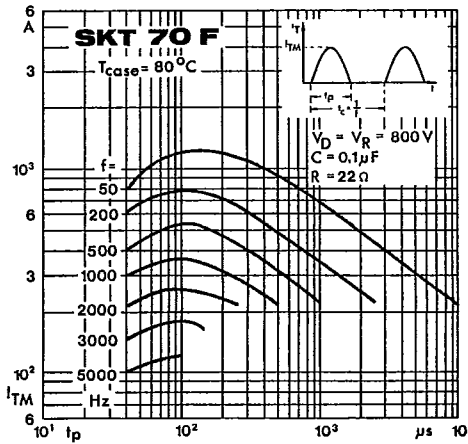


Fig. 1 b Rated peak on-state current vs. pulse duration

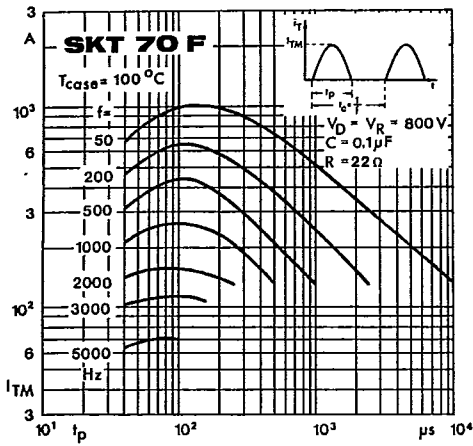


Fig. 1 c Rated peak on-state current vs. pulse duration

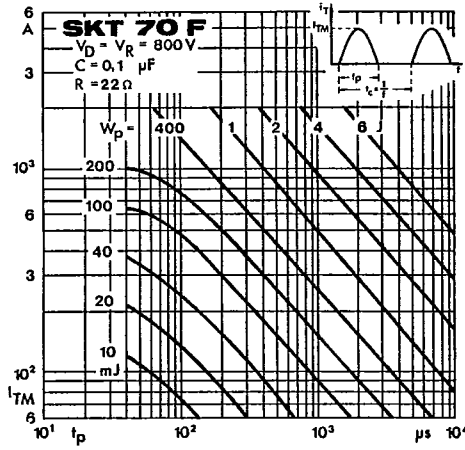


Fig. 2 Energy dissipation per pulse

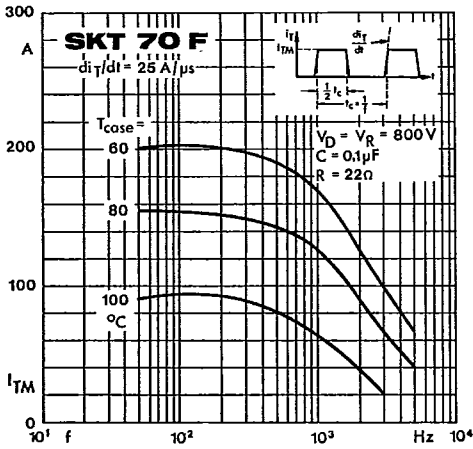


Fig. 3 a Rated peak on-state current vs. pulse duration

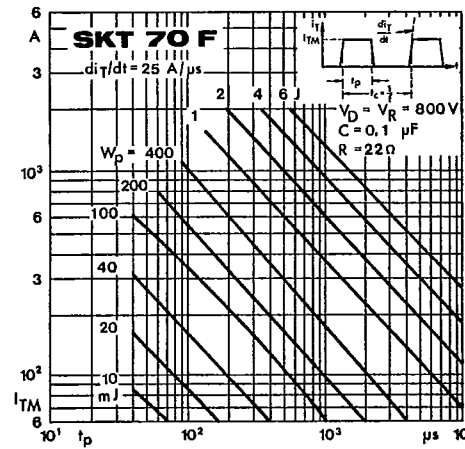


Fig. 4 a Energy dissipation per pulse

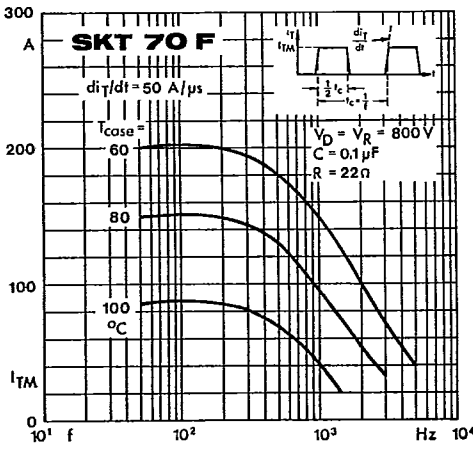


Fig. 3 b Rated peak on-state current vs. pulse duration

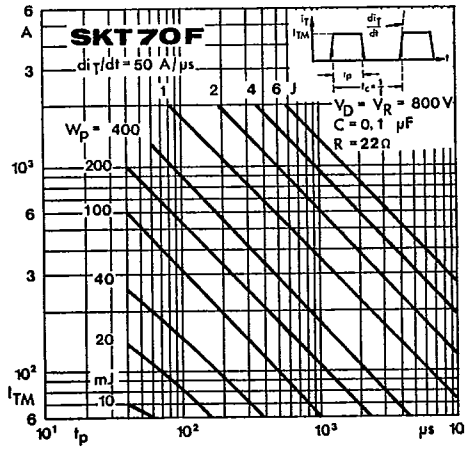


Fig. 4 b Energy dissipation per pulse

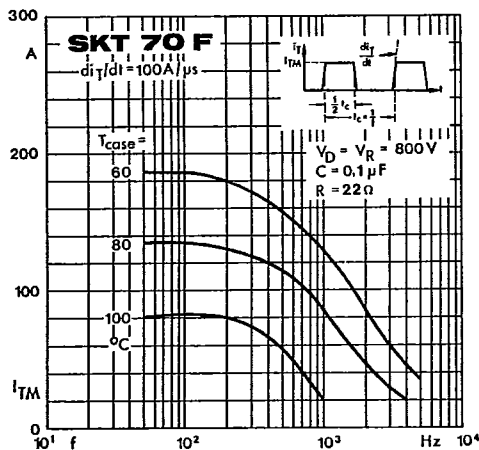


Fig. 3 c Rated peak on-state current vs. pulse duration

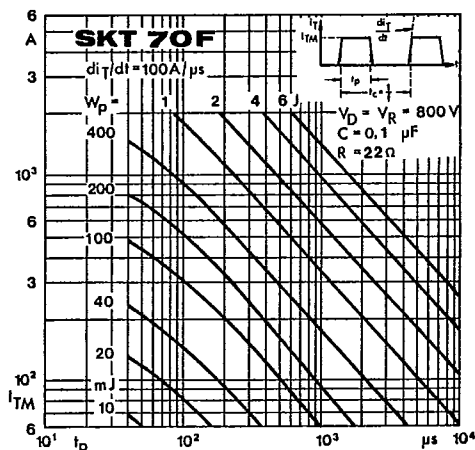


Fig. 4 c Energy dissipation per pulse

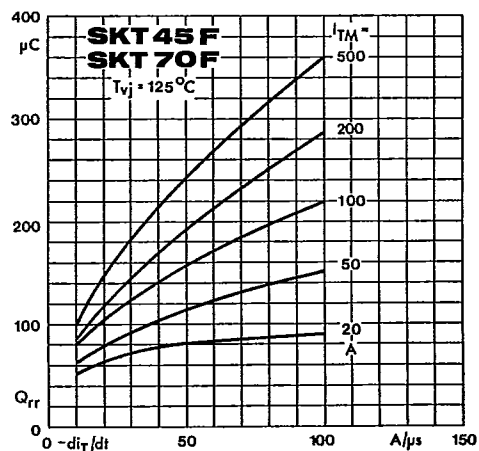


Fig. 5 Recovered charge vs. current decrease

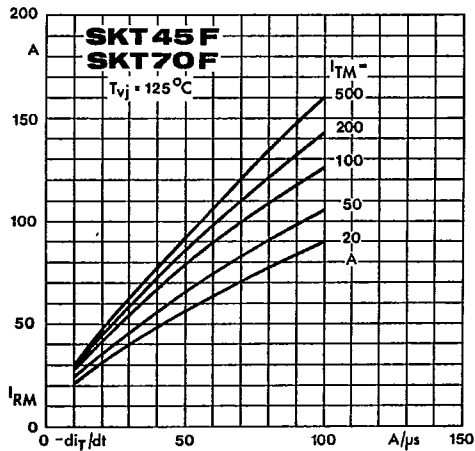


Fig. 6 Peak recovery current vs. current decrease

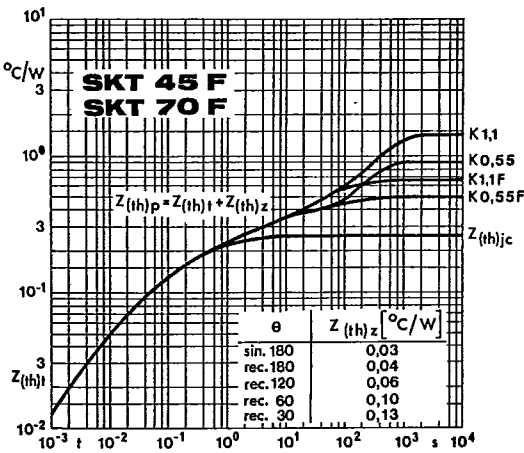


Fig. 7 Transient thermal impedance vs. time

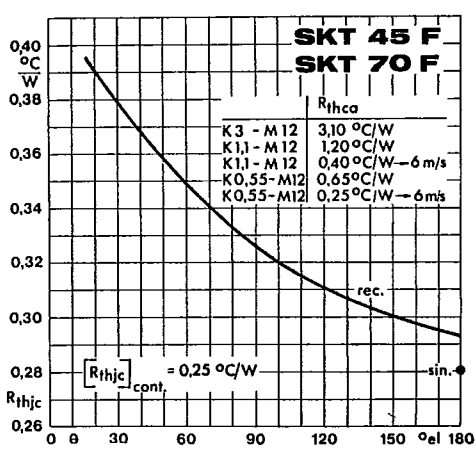


Fig. 8 Thermal resistance vs. conduction angle

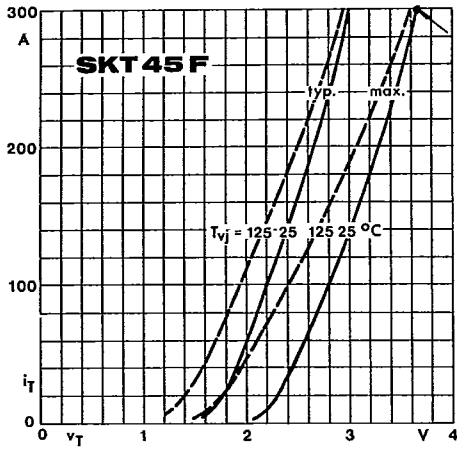


Fig. 9 a On-state characteristics

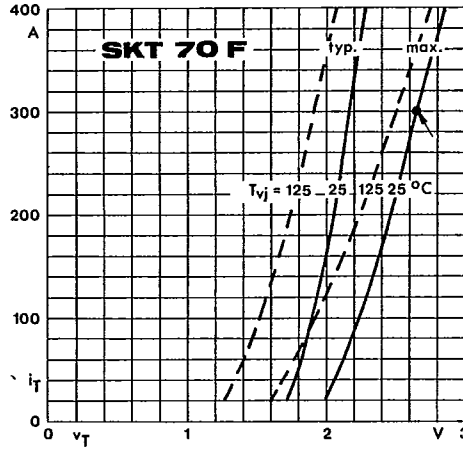


Fig. 9 b On-state characteristics

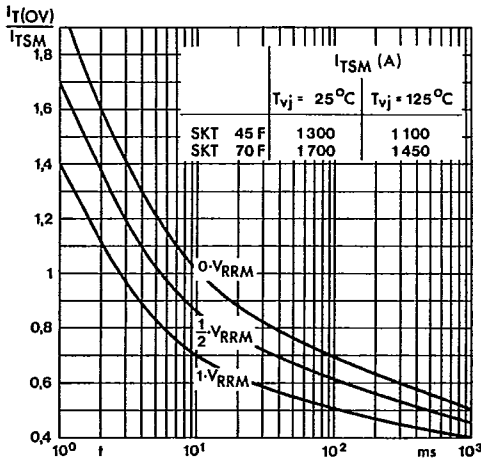


Fig. 10 Surge overload current vs. time

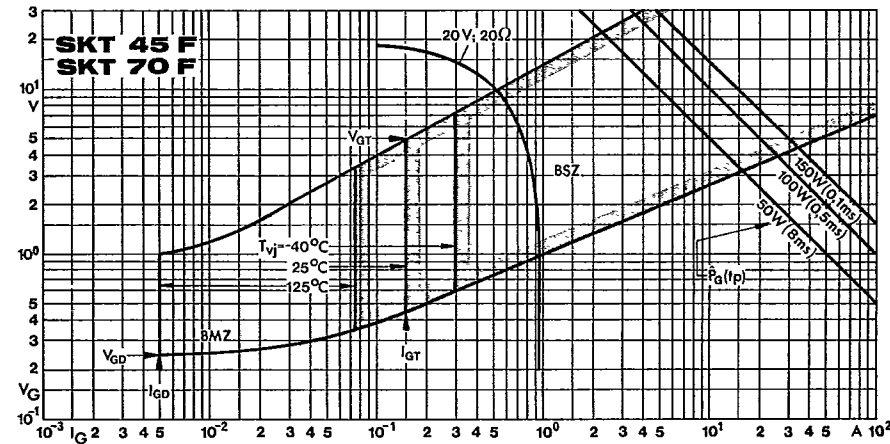


Fig. 11 Gate trigger characteristics