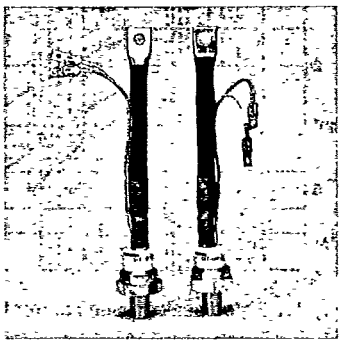
V_{DRM} V_{RRM}	t_q (T_{vj} = 125 °C)	I_{TRMS} (maximum values for continuous operation) 240 A	275 A
		I_{TAV} (sin. 180; T_{case} = ... °C; 50 Hz)	
V	µs	110 A (85 °C)	140 A (85 °C)
600	20	**SKT 110 F 06 DT**	**SKT 140 F 06 DT**
800	20	**SKT 110 F 08 DT**	
1000	25	**SKT 110 F 10 DU**	**SKT 140 F 10 DU**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

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^2t	T_{vj} = 25 °C	45000 A^2s	70000 A^2s
	T_{vj} = 125 °C	31500 A^2s	50000 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 · V_{DRM}	typ. 1 µs	
$(di/dt)_{cr}$	non-repetitive	800 A/µs	
	f = 50...60 Hz	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}	70mA	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	

Fast Thyristors with Amplifying Gate

SKT 110 F
SKT 140 F



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

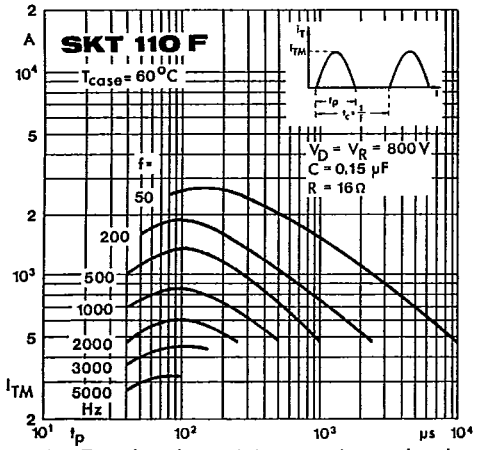


Fig. 1 a Rated peak on-state current vs. pulse duration

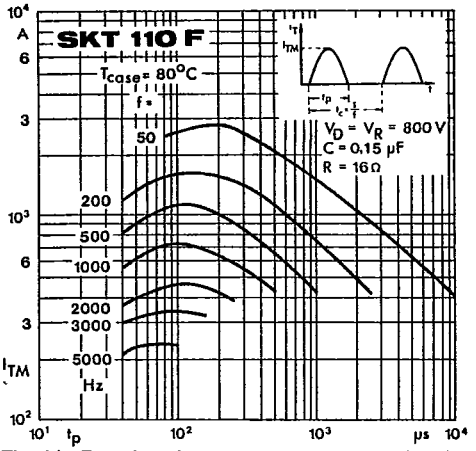


Fig. 1 b Rated peak on-state current vs. pulse duration

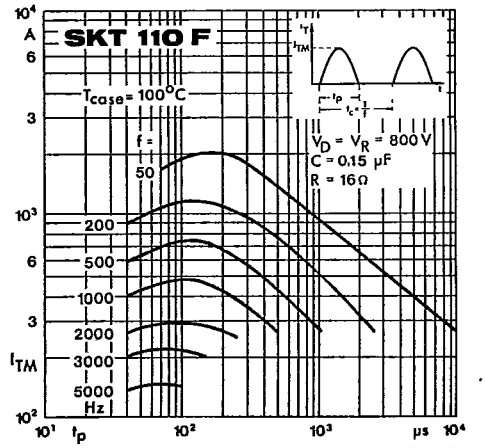


Fig. 1 c Rated peak on-state current vs. pulse duration

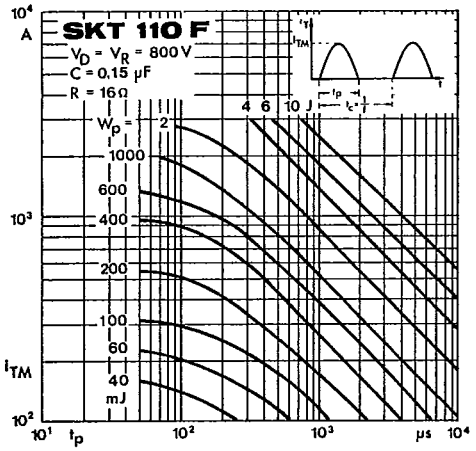


Fig. 2 Energy dissipation per pulse

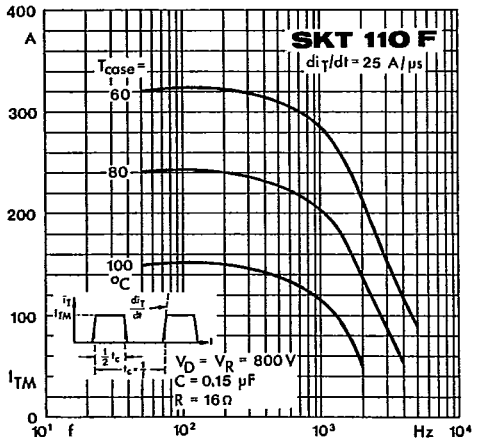


Fig. 3 a Rated peak on-state current vs. pulse duration

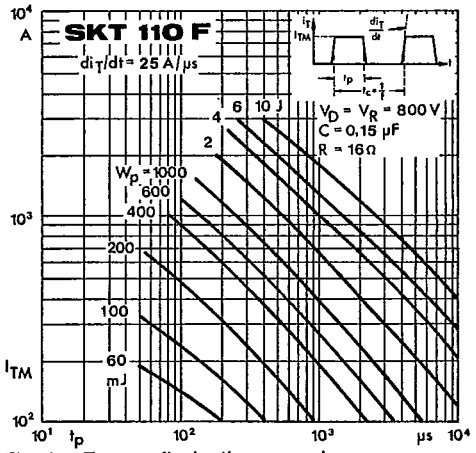


Fig. 4 a Energy dissipation per pulse

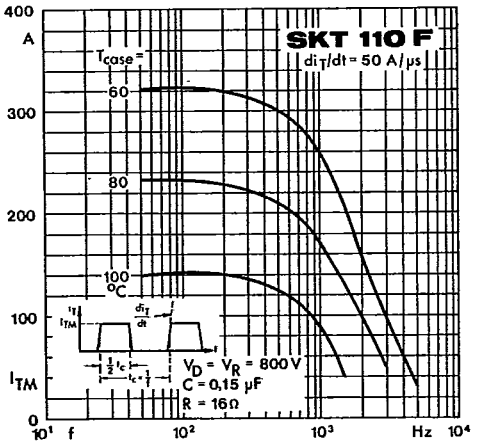


Fig. 3 b Rated peak on-state current vs. pulse duration

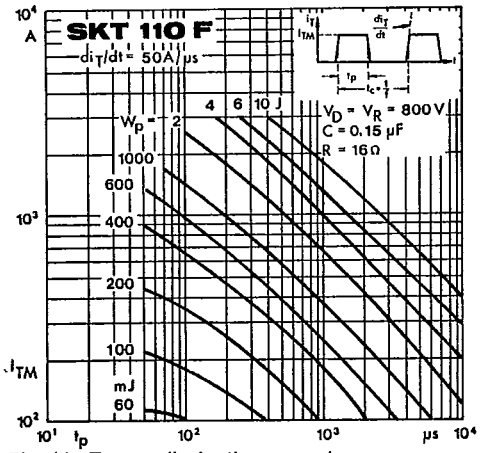


Fig. 4 b Energy dissipation per pulse

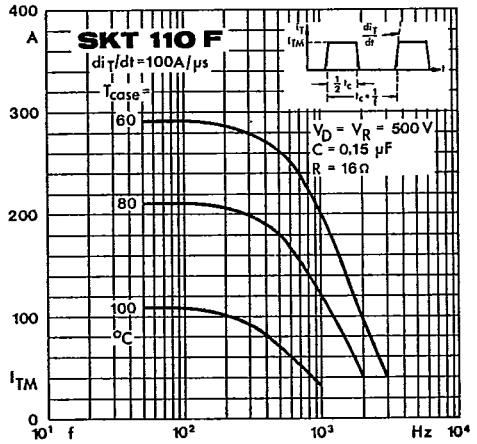


Fig. 3 c Rated peak on-state current vs. pulse duration

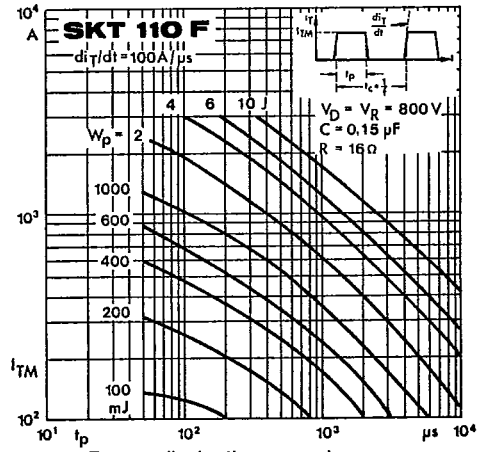


Fig. 4 c Energy dissipation per pulse

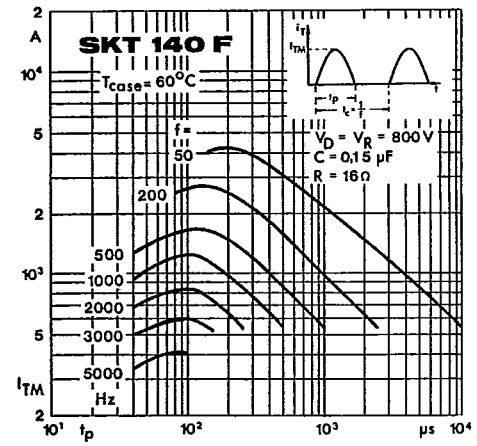


Fig. 1 a Rated peak on-state current vs. pulse duration

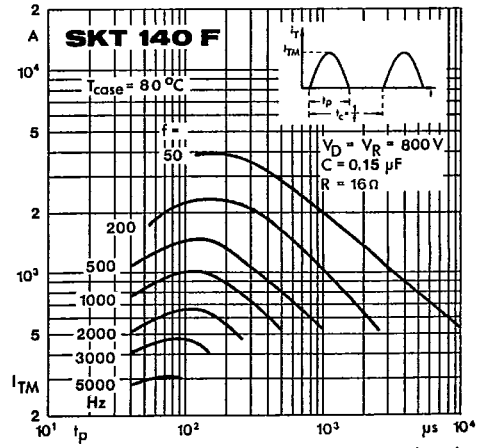


Fig. 1 b Rated peak on-state current vs. pulse duration

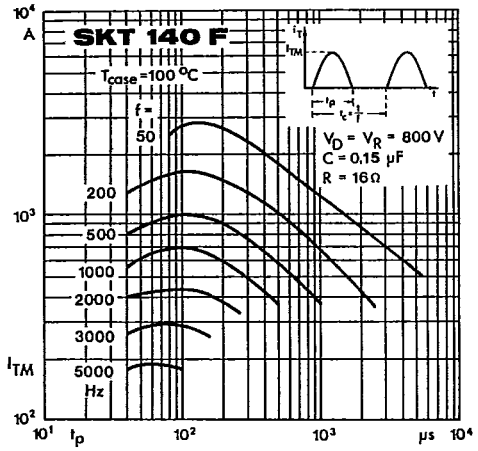


Fig. 1 c Rated peak on-state current vs. pulse duration

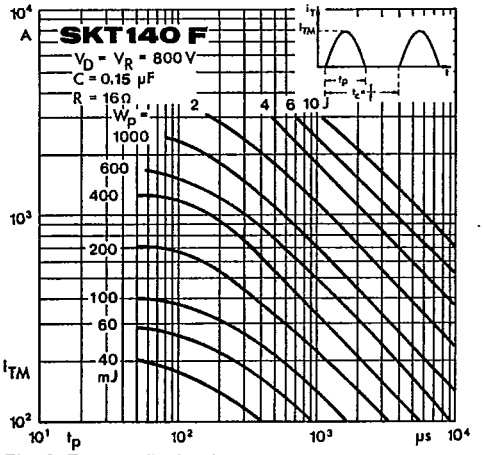


Fig. 2 Energy dissipation per pulse

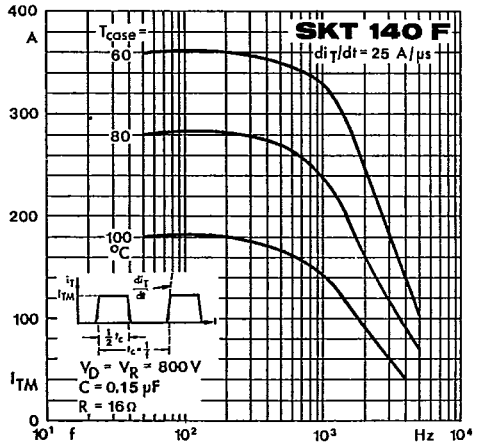


Fig. 3 a Rated peak on-state current vs. pulse duration

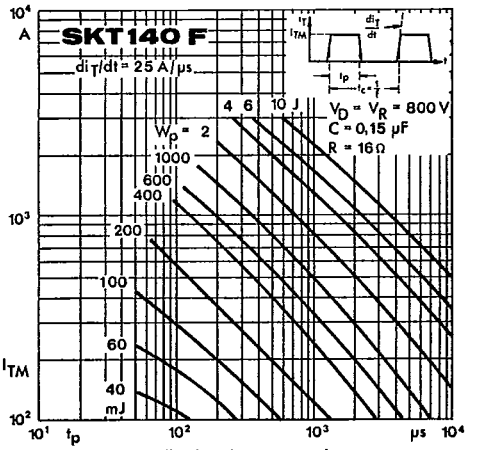


Fig. 4 a Energy dissipation per pulse

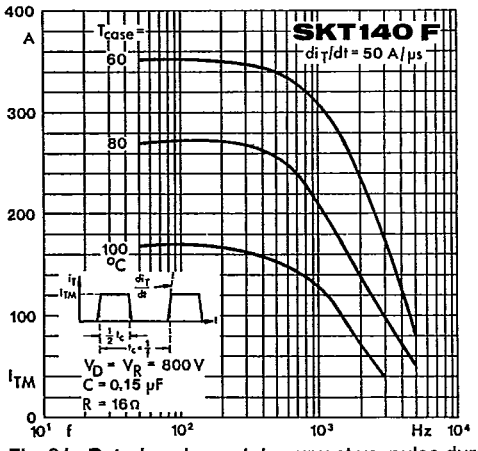


Fig. 3 b Rated peak on-state current vs. pulse duration

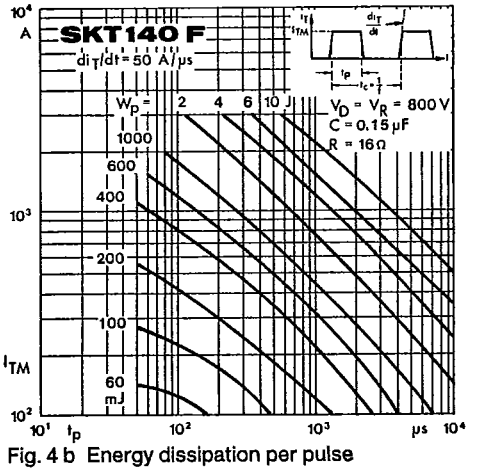


Fig. 4 b Energy dissipation per pulse

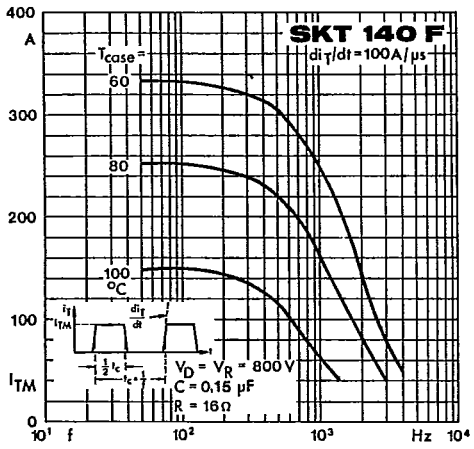


Fig. 3 c Rated peak on-state current vs. pulse duration

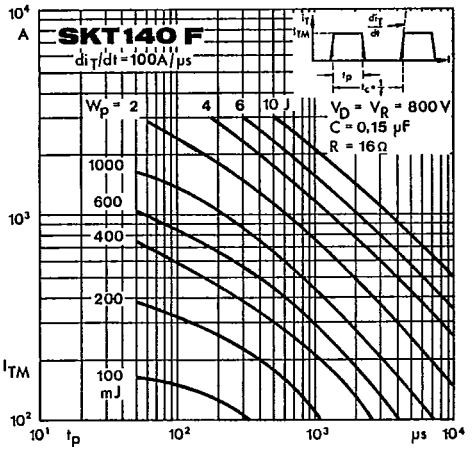


Fig. 4 c Energy dissipation per pulse

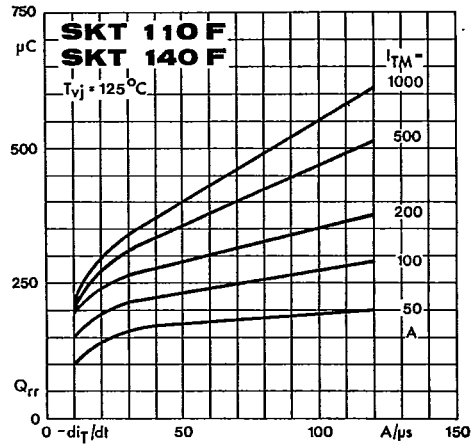


Fig. 5 Recovered charge vs. current decrease

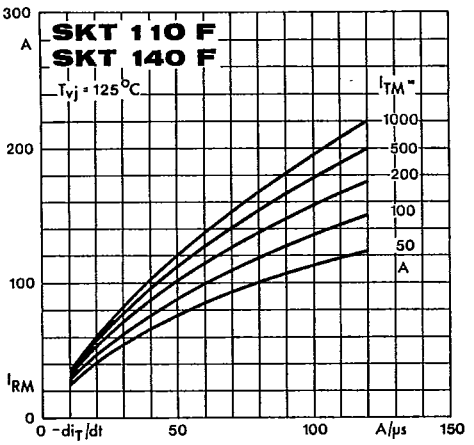


Fig. 6 Peak recovery current vs. current decrease

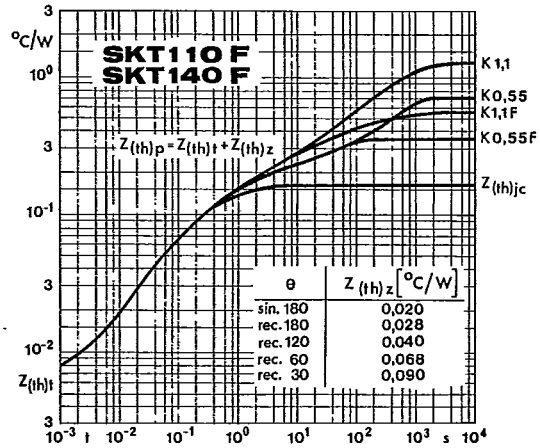


Fig. 7 Transient thermal impedance vs. time

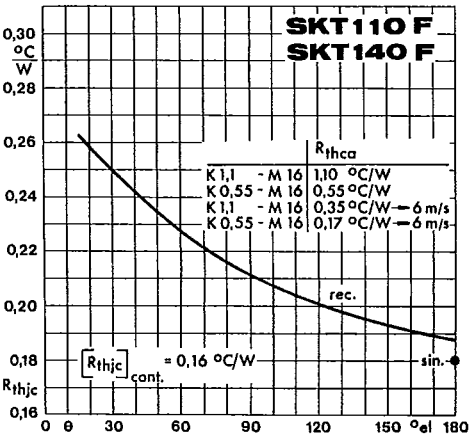


Fig. 8 Thermal resistance vs. conduction angle

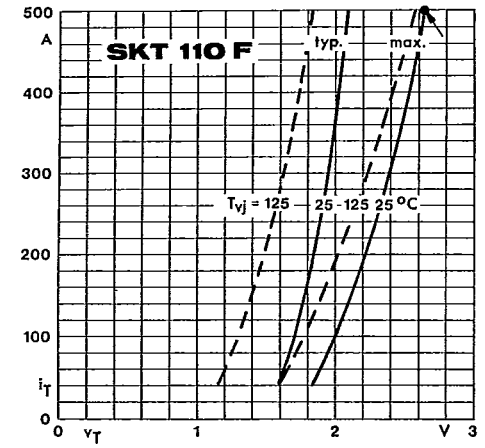


Fig. 9 a On-state characteristics

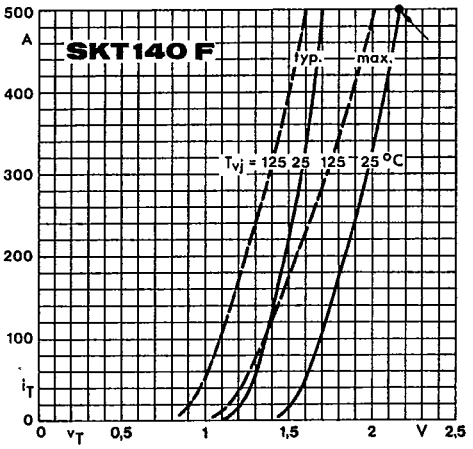


Fig. 9 b On-state characteristics

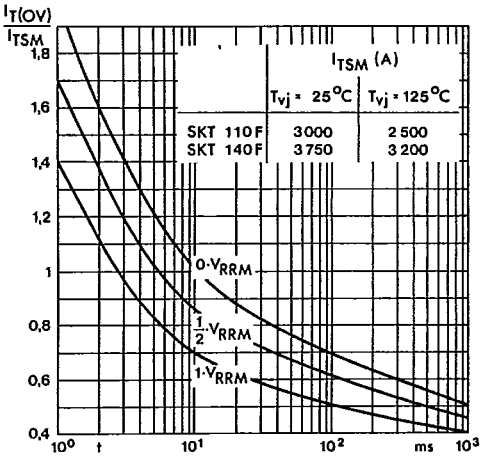


Fig. 10 Surge overload current vs. time

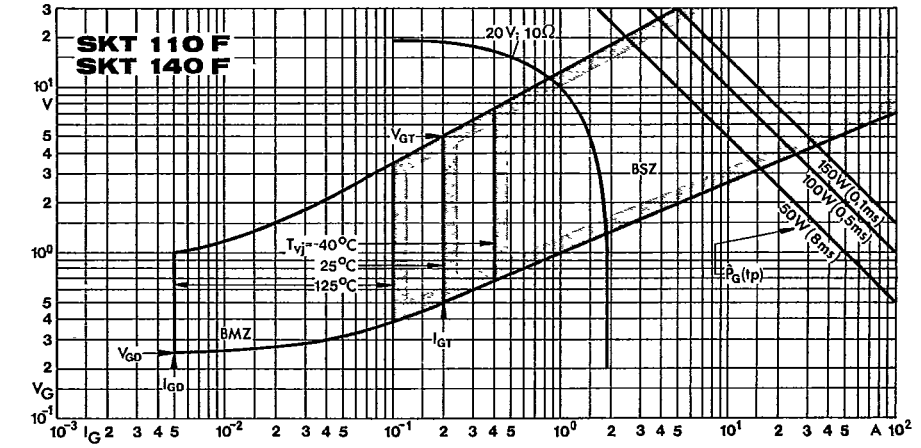


Fig. 11 Gate trigger characteristics