V_{DRM} V_{RRM}	t_q (T_{vj} = 125 °C)	I_{TRMS} (maximum values for continuous operation) 450 A	600 A
		I_{TAV} (sin. 180; T_{case} = ... °C; 50 Hz; DSC)	
V	µs	240 A (88 °C)	290 A (85 °C)
400	15	**SKT 240 F 04 DS**	**SKT 290 F 04 DS**
	20	**SKT 240 F 04 DT**	**SKT 290 F 04 DT**
800	15	**SKT 240 F 08 DS**	**SKT 290 F 08 DS**
	20	**SKT 240 F 08 DT**	**SKT 290 F 08 DT**
1000	15	**SKT 240 F 10 DS**	**SKT 290 F 10 DS**
	20	**SKT 240 F 10 DT**	**SKT 290 F 10 DT**
1200	15	**SKT 240 F 12 DS***	
	20	**SKT 240 F 12 DT**	**SKT 290 F 12 DT**
	25	**SKT 240 F 12 DU**	**SKT 290 F 12 DU**
1400	30	**SKT 240 F 14 DV***	

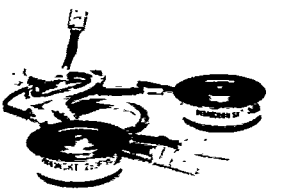
Symbol	Conditions	SKT 240 F	SKT 290 F
I_{TM}	sin. 180; T_{case} = 60 °C; DSC; 50 Hz	900 A	1200 A
I_{TSM}	T_{vj} = 25 °C	4500 A	5000 A
	T_{vj} = 125 °C	4000 A	4500 A
i^2t	T_{vj} = 25 °C	101 000 A^2s	125 000 A^2s
	T_{vj} = 125 °C	80 000 A^2s	101 000 A^2s
t_{gd}	T_{vj} = 25 °C; I_G = 1 A; di_G/dt = 1 A/µs	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	300 A/µs	
$(dv/dt)_{cr}$	T_{vj} = 125 °C	500 V/µs	
I_H	T_{vj} = 25 °C; typ./max.	200 mA/400 mA	
I_L	T_{vj} = 25 °C; R_G = 33 Ω; typ./max.	1 A/2 A	
V_T	T_{vj} = 25 °C; I_T = 900 A	2,40 V	2,05 V
$V_{T(TO)}$	T_{vj} = 125 °C	1,45 V	1,3 V
r_T	T_{vj} = 125 °C	1 mΩ	0,75 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	4 V	
I_{GT}	T_{vj} = 25 °C	250 mA	
V_{GD}	T_{vj} = 125 °C	0,25 V	
I_{GD}	T_{vj} = 125 °C	10 mA	
R_{thjc}	cont.; DSC/SSC	0,070/0,148 °C/W	
R_{thch}	DSC/SSC	0,020/0,040 °C/W	
T_{vj}		−40 ... +125 °C	
T_{stg}		−40 ... +125 °C	
F	SI units	4 ... 5 kN	
	US units	900 ... 1100 lbs.	
w		61 g	
Case	→ page B 4–21	B 8	

* Available in limited quantities

Fast Thyristors with Amplifying Gate

SKT 240 F
SKT 290 F

T-25-19



Features

- Capsule cases
- Hermetic ceramic to metal sealing
- Gold diffused silicon chips
- Amplifying gate

Typical Applications

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

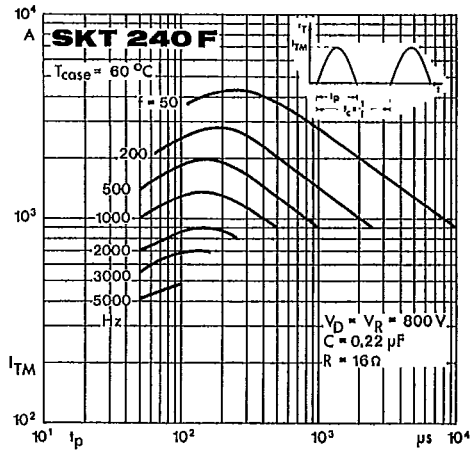


Fig. 1 a Rated peak on-state current vs. pulse duration

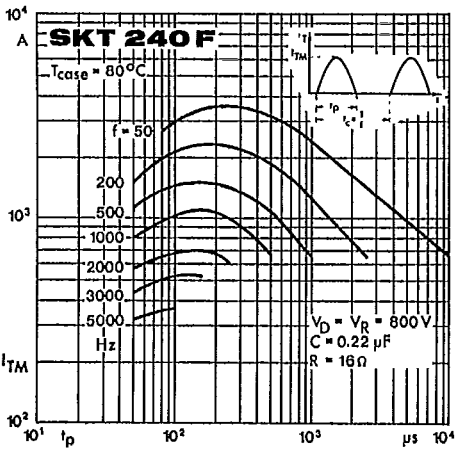


Fig. 1 b Rated peak on-state current vs. pulse duration

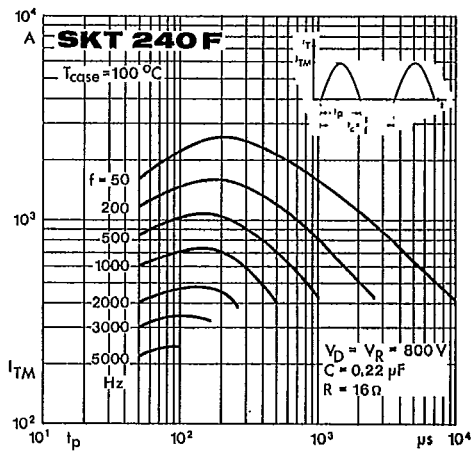


Fig. 1 c Rated peak on-state current vs. pulse duration

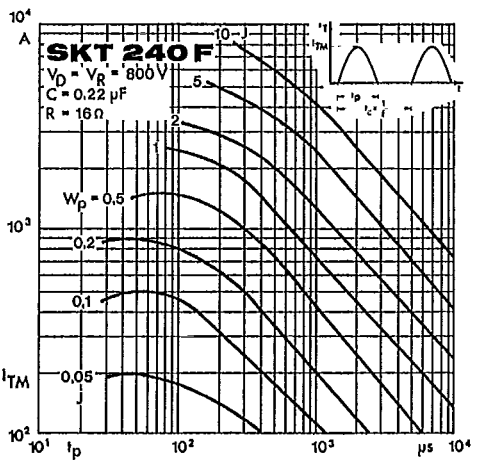


Fig. 2 Energy dissipation per pulse

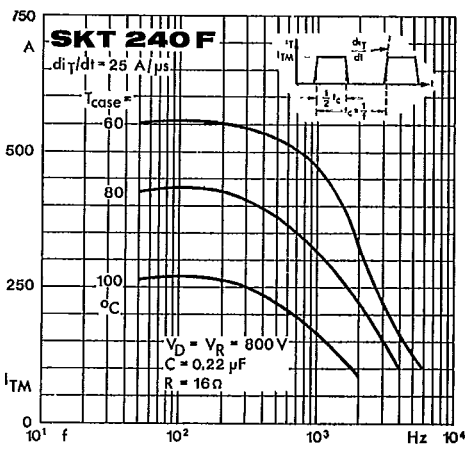


Fig. 3 a Rated peak on-state current vs. pulse duration

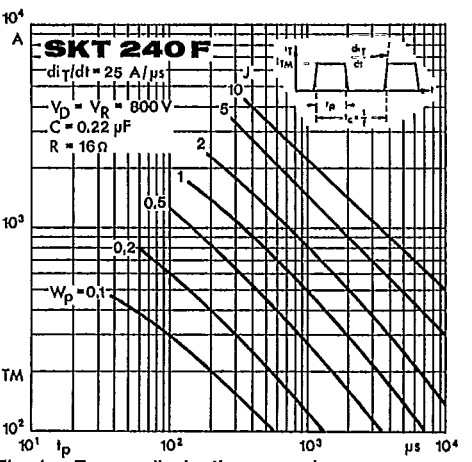


Fig. 4 a Energy dissipation per pulse

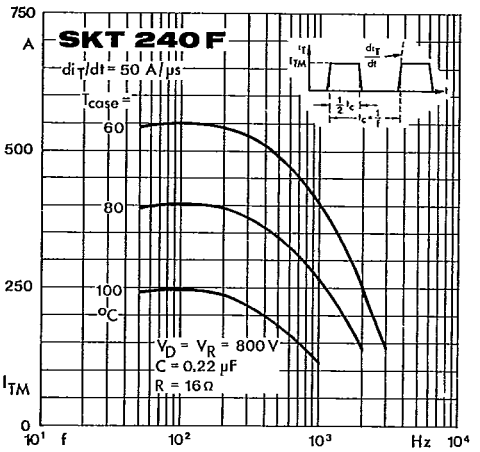


Fig. 3 b Rated peak on-state current vs. pulse duration

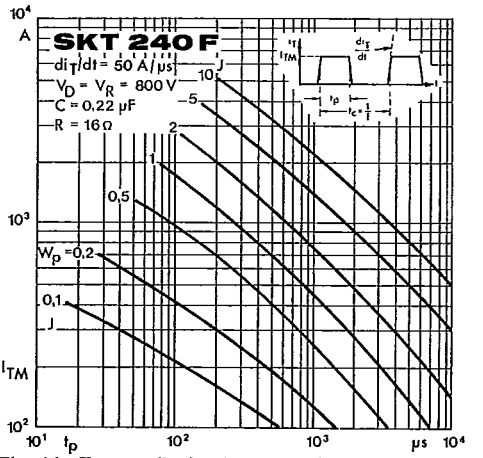


Fig. 4 b Energy dissipation per pulse

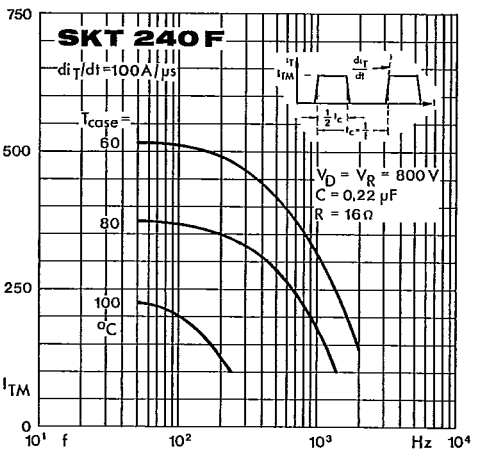


Fig. 3 c Rated peak on-state current vs. pulse duration

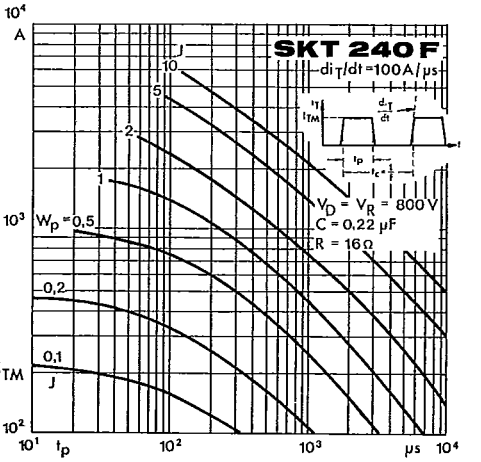


Fig. 4 c Energy dissipation per pulse

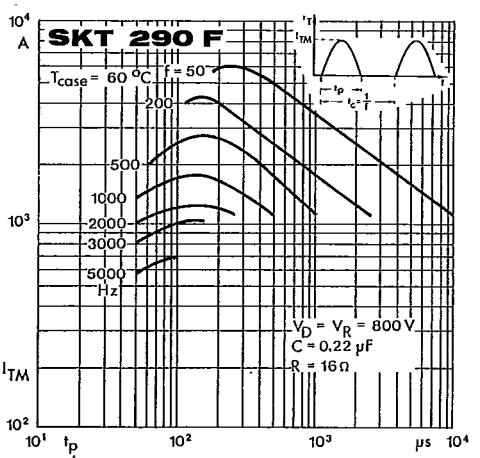


Fig. 1 a Rated peak on-state current vs. pulse duration

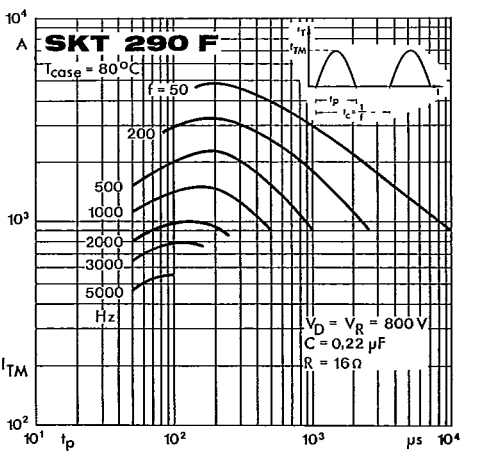


Fig. 1 b Rated peak on-state current vs. pulse duration

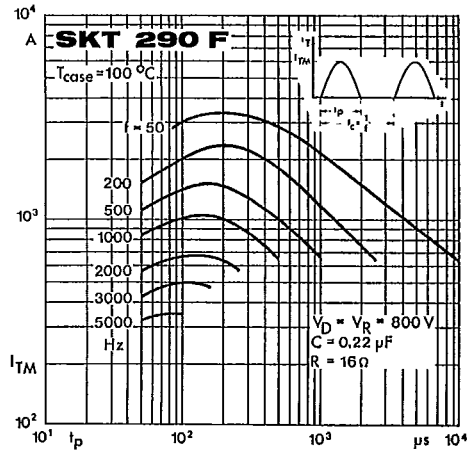


Fig. 1 c Rated peak on-state current vs. pulse duration

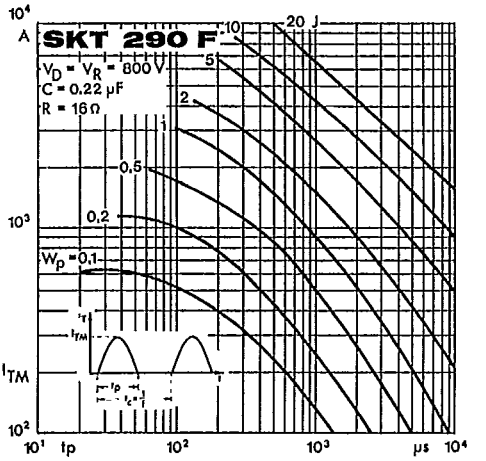


Fig. 2 Energy dissipation per pulse

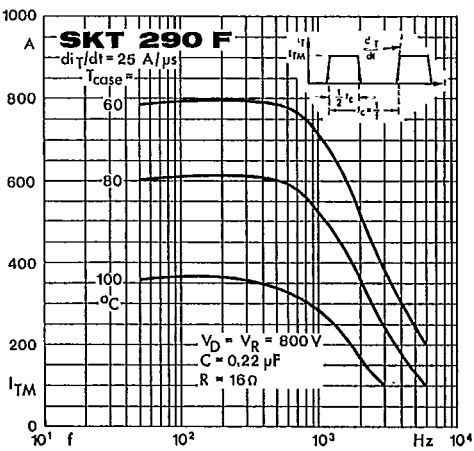


Fig. 3 a Rated peak on-state current vs. pulse duration

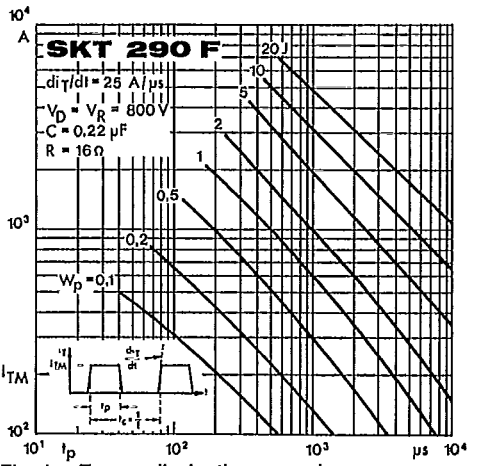


Fig. 4 a Energy dissipation per pulse

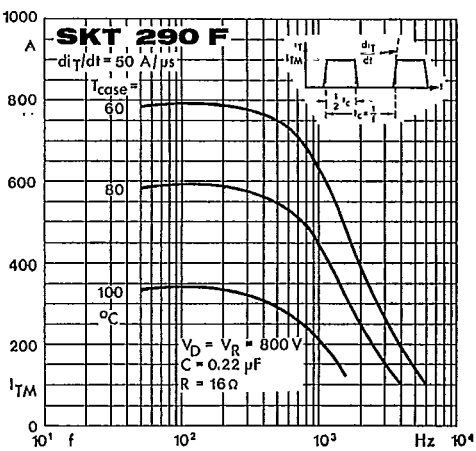


Fig. 3 b Rated peak on-state current vs. pulse duration

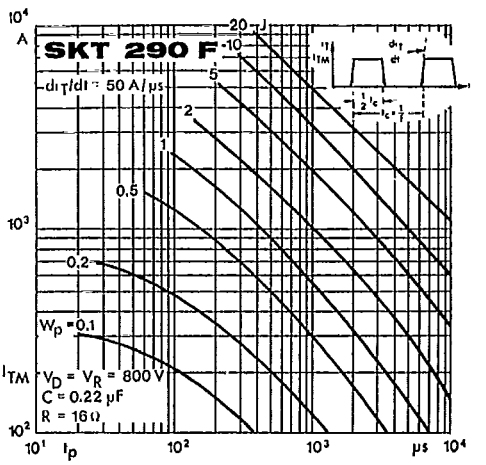


Fig. 4 b Energy dissipation per pulse

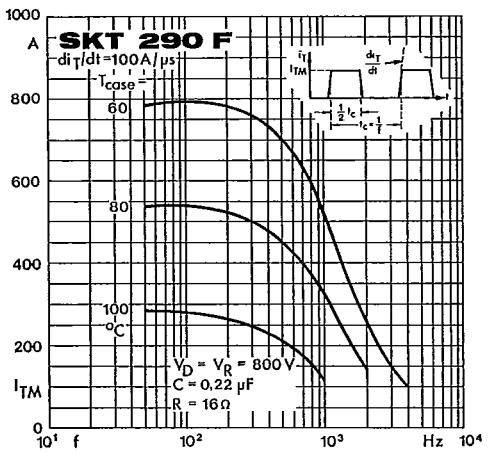


Fig. 3 c Rated peak on-state current vs. pulse duration

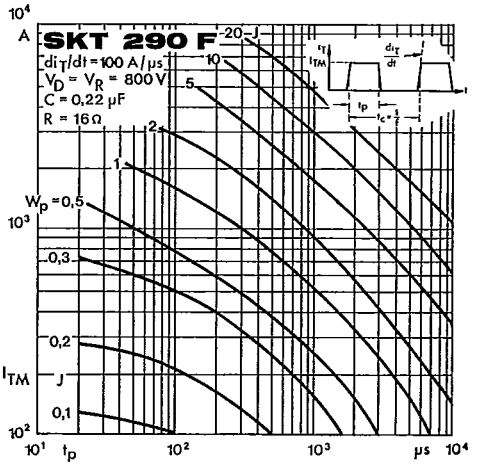


Fig. 4 c Energy dissipation per pulse

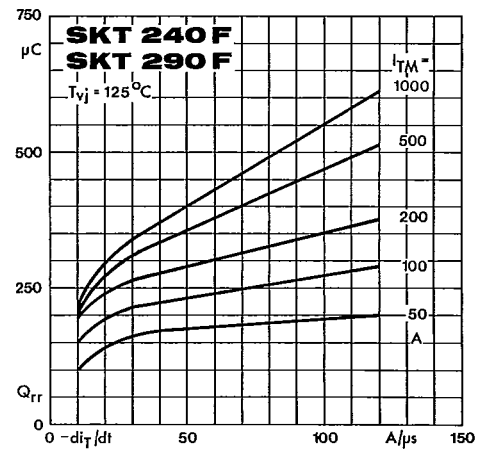


Fig. 5 Recovered charge vs. current decrease

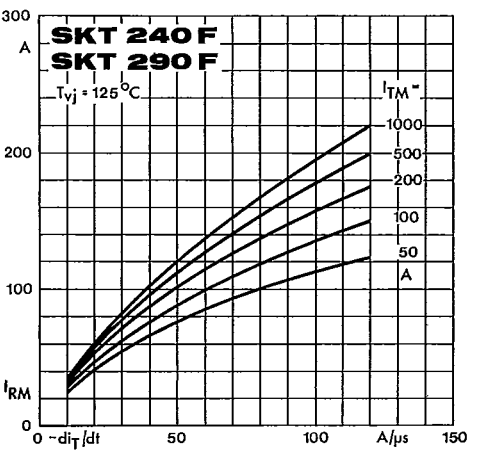


Fig. 6 Peak recovery current vs. current decrease

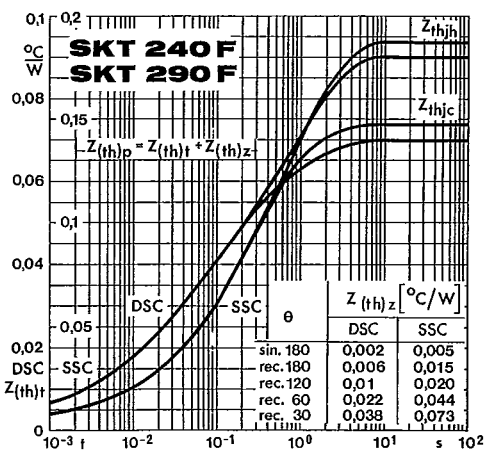


Fig. 7 Transient thermal impedance vs. time

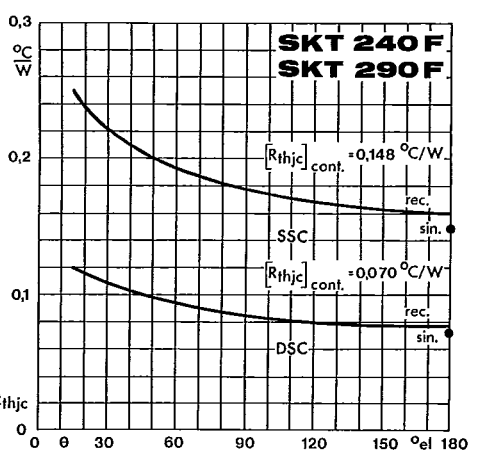


Fig. 8 Thermal resistance vs. conduction angle

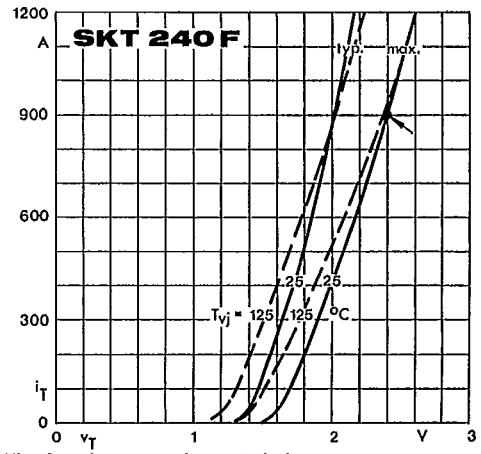


Fig. 9 a On-state characteristics

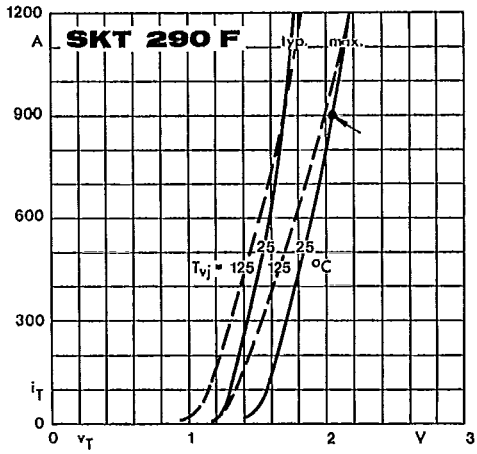


Fig. 9 b On-state characteristics

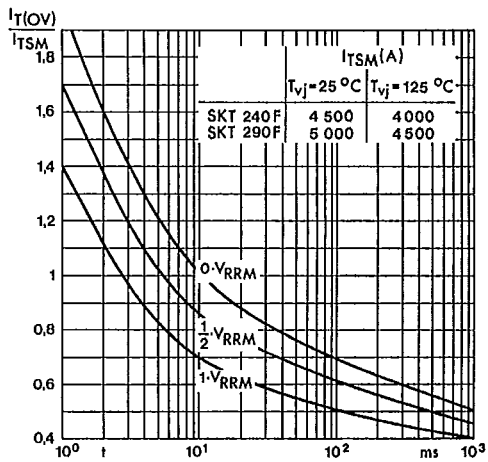


Fig. 10 Surge overload current vs. time

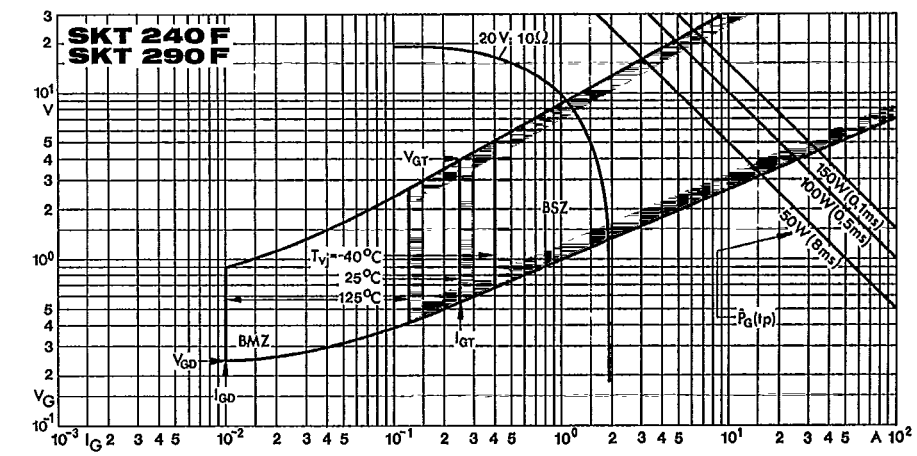


Fig. 11 Gate trigger characteristics