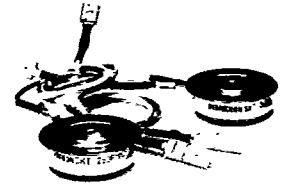


V_{DRM} V_{RRM} V	t_q ($T_{vj} = 125^\circ\text{C}$) μs	I_{TMS} (maximum values for continuous operation)	
		450 A	600 A
		I_{TAV} (sin. 180; $T_{case} = \dots^\circ\text{C}$; 50 Hz; DSC) 240 A (88 $^\circ\text{C}$) 290 A (85 $^\circ\text{C}$)	
400	15 20	SKT 240 F 04 DS SKT 240 F 04 DT	SKT 290 F 04 DS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

Fast Thyristors with Amplifying Gate**SKT 240 F**
SKT 290 F

T.25-19



Symbol	Conditions	SKT 240 F	SKT 290 F
I_{TM}	sin. 180; $T_{case} = 60^\circ\text{C}$; DSC; 50 Hz	900 A	1200 A
I_{TSM}	$T_{vj} = 25^\circ\text{C}$ $T_{vj} = 125^\circ\text{C}$	4500 A 4000 A	5000 A 4500 A
i^2t	$T_{vj} = 25^\circ\text{C}$ $T_{vj} = 125^\circ\text{C}$	101 000 A^2s 80 000 A^2s	125 000 A^2s 101 000 A^2s
t_{gd} t_{gr} (di/dt) _{cr} (dv/dt) _{cr}	$T_{vj} = 25^\circ\text{C}$; $I_G = 1\text{ A}$; $di_G/dt = 1\text{ A}/\mu\text{s}$ $V_D = 0,67 \cdot V_{DRM}$ non-repetitive $f = 50 \dots 60\text{ Hz}$ $T_{vj} = 125^\circ\text{C}$	typ. 1 μs typ. 1 μs 800 A/ μs 300 A/ μs 500 V/ μs	
I_H I_L	$T_{vj} = 25^\circ\text{C}$; typ./max. $T_{vj} = 25^\circ\text{C}$; $R_G = 33\Omega$; typ./max.	200 mA/400 mA 1 A/2 A	
V_T $V_{T(TO)}$ r_T I_{DD}, I_{RD}	$T_{vj} = 25^\circ\text{C}$; $I_T = 900\text{ A}$ $T_{vj} = 125^\circ\text{C}$ $T_{vj} = 125^\circ\text{C}$ $T_{vj} = 125^\circ\text{C}$; $V_{DD} = V_{DRM}$; $V_{RD} = V_{RRM}$	2,40 V 1,45 V 1 m Ω 70 mA	2,05 V 1,3 V 0,75 m Ω 70 mA
V_{GT} I_{GT} V_{GD} I_{GD}	$T_{vj} = 25^\circ\text{C}$ $T_{vj} = 25^\circ\text{C}$ $T_{vj} = 125^\circ\text{C}$ $T_{vj} = 125^\circ\text{C}$	4 V 250 mA 0,25 V 10 mA	
R_{thjc} R_{thch} T_{vj} T_{stg}	cont.; DSC/SSC DSC/SSC 	0,070/0,148 $^\circ\text{C}/\text{W}$ 0,020/0,040 $^\circ\text{C}/\text{W}$ -40 ... +125 $^\circ\text{C}$ -40 ... +125 $^\circ\text{C}$	
F w	SI units US units	4 ... 5 kN 900 ... 1100 lbs. 61 g	
Case	→ page B 4-21	B 8	

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

* Available in limited quantities

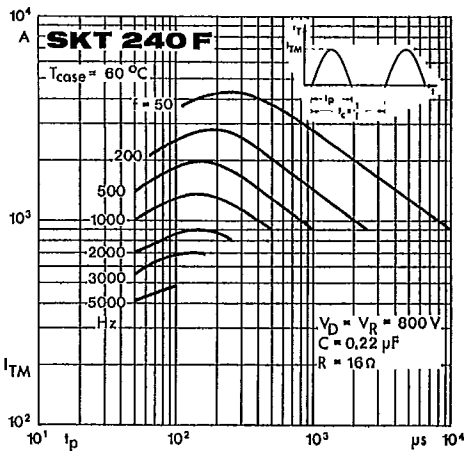


Fig. 1 a Rated peak on-state current vs. pulse duration

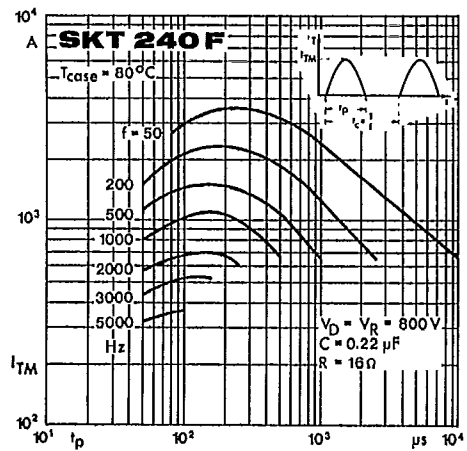


Fig. 1 b Rated peak on-state current vs. pulse duration

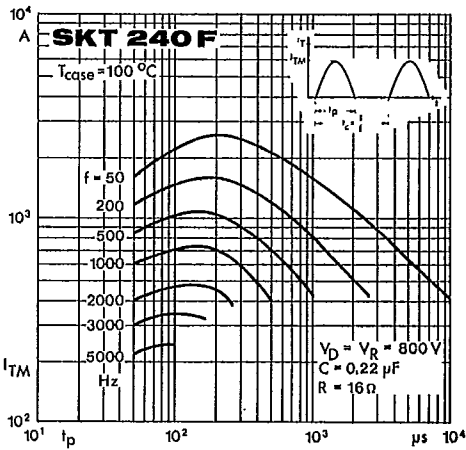


Fig. 1 c Rated peak on-state current vs. pulse duration

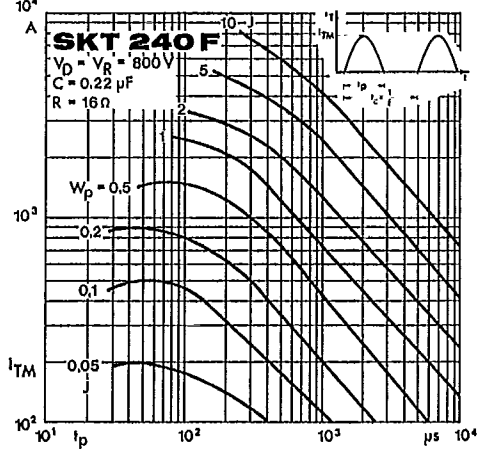


Fig. 2 Energy dissipation per pulse

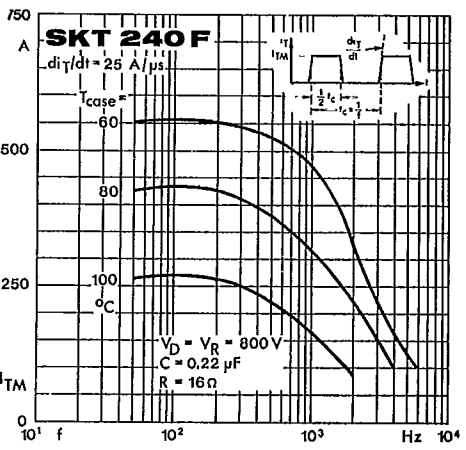


Fig. 3 a Rated peak on-state current vs. pulse duration

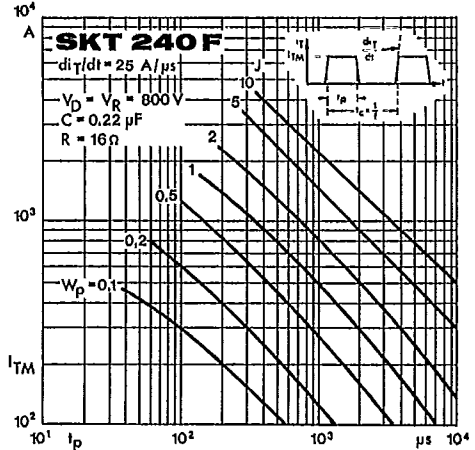


Fig. 4 a Energy dissipation per pulse

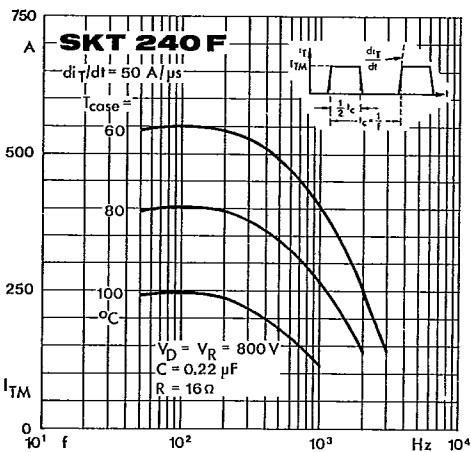


Fig. 3 b Rated peak on-state current vs. pulse duration

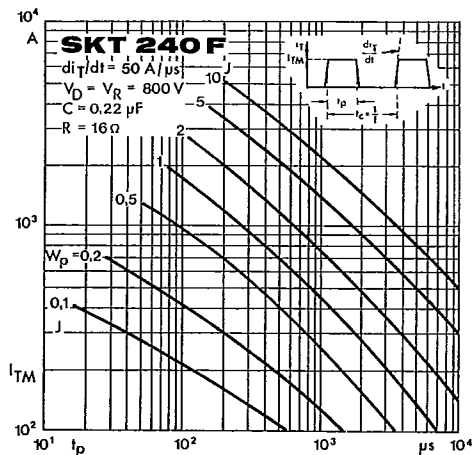


Fig. 4 b Energy dissipation per pulse

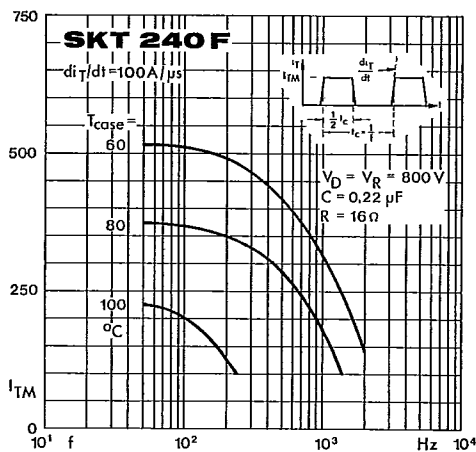


Fig. 3 c Rated peak on-state current vs. pulse duration

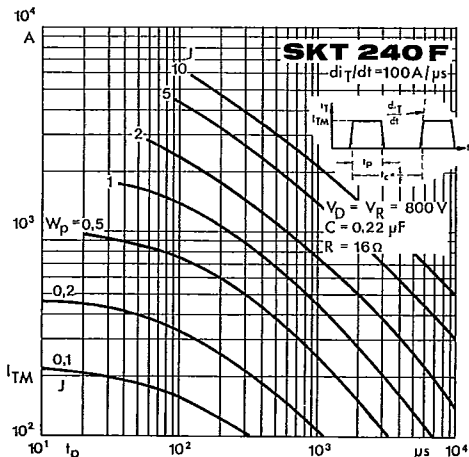


Fig. 4 c Energy dissipation per pulse

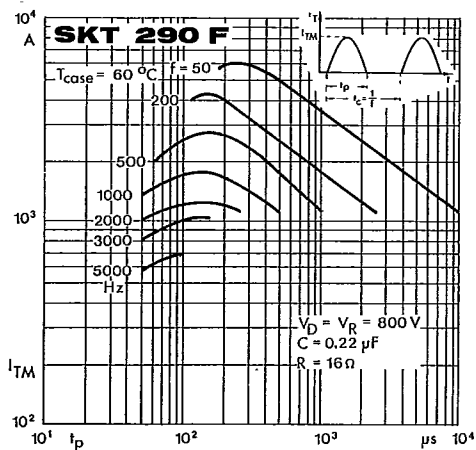


Fig. 1 a Rated peak on-state current vs. pulse duration

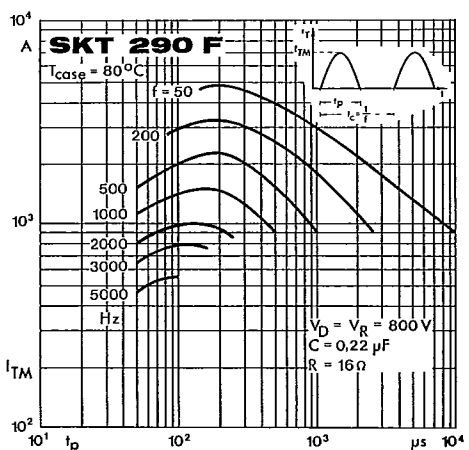


Fig. 1 b Rated peak on-state current vs. pulse duration

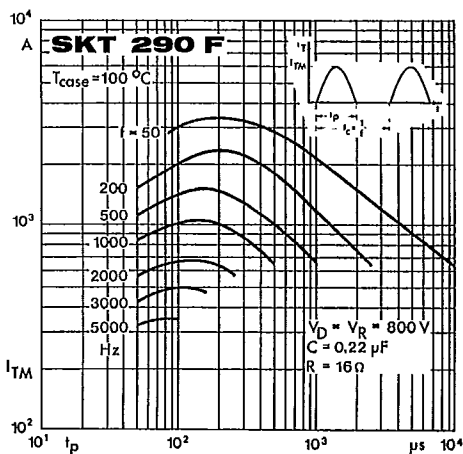


Fig. 1 c Rated peak on-state current vs. pulse duration

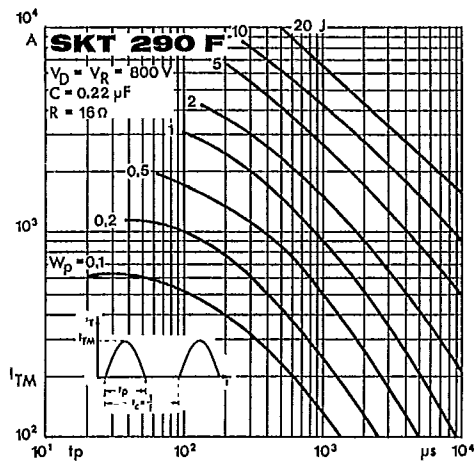


Fig. 2 Energy dissipation per pulse

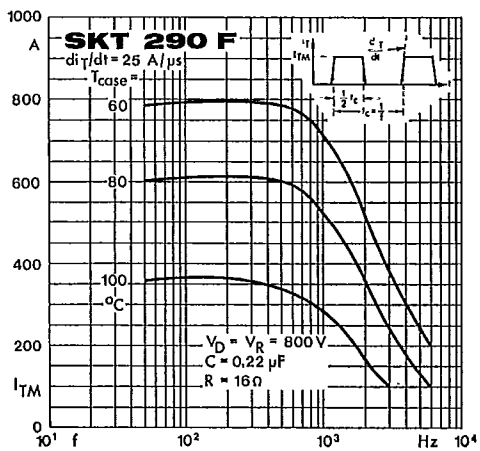


Fig. 3 a Rated peak on-state current vs. pulse duration

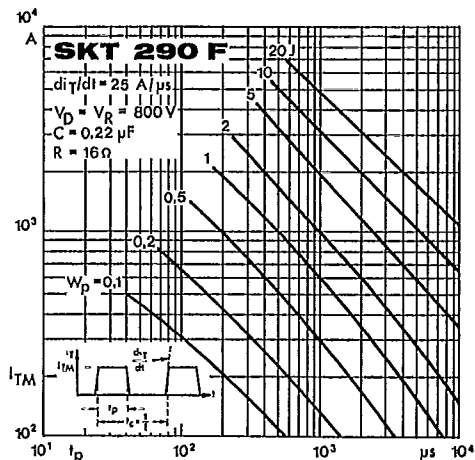


Fig. 4 a Energy dissipation per pulse

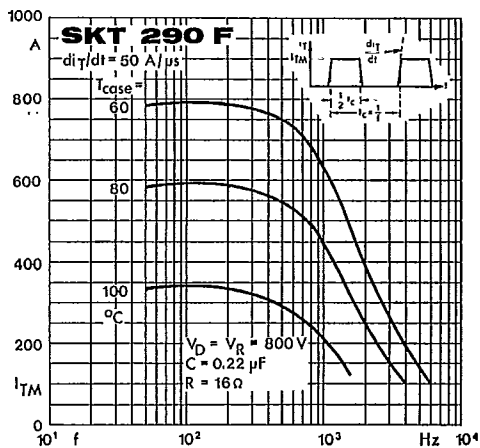


Fig. 3 b Rated peak on-state current vs. pulse duration

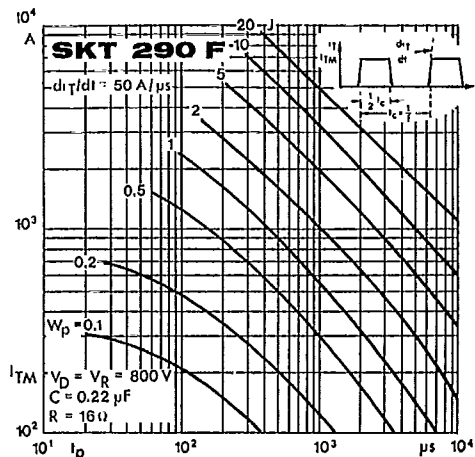


Fig. 4 b Energy dissipation per pulse

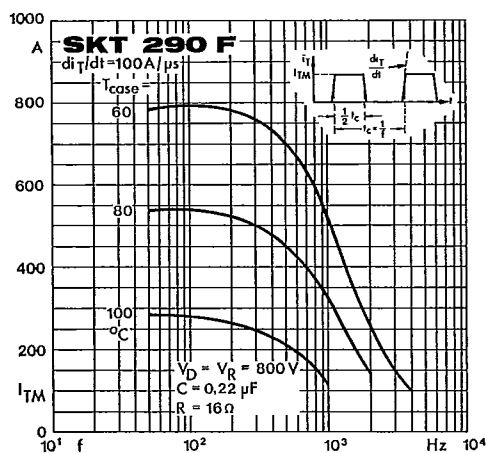


Fig. 3 c Rated peak on-state current vs. pulse duration

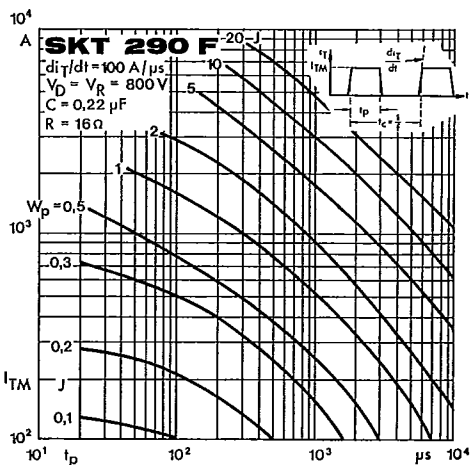


Fig. 4 c Energy dissipation per pulse

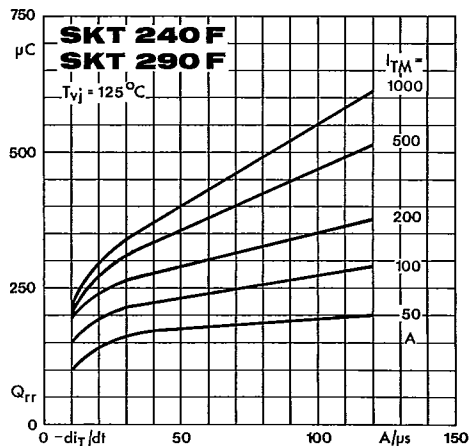


Fig. 5 Recovered charge vs. current decrease

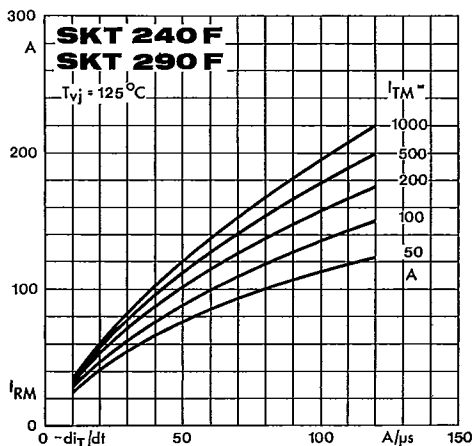


Fig. 6 Peak recovery current vs. current decrease

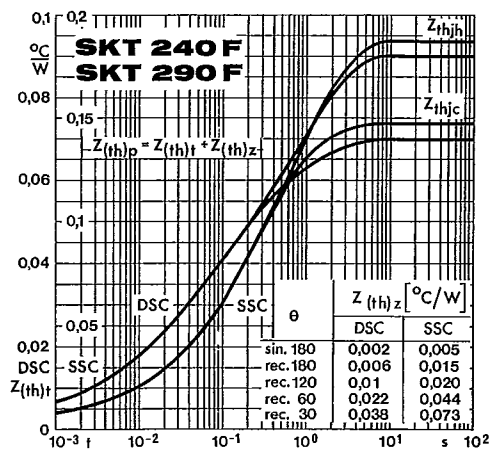


Fig. 7 Transient thermal impedance vs. time

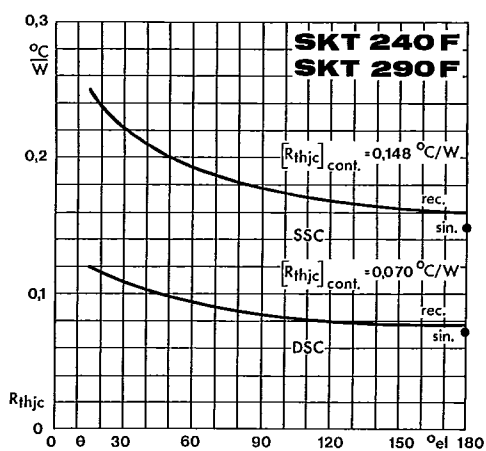


Fig. 8 Thermal resistance vs. conduction angle

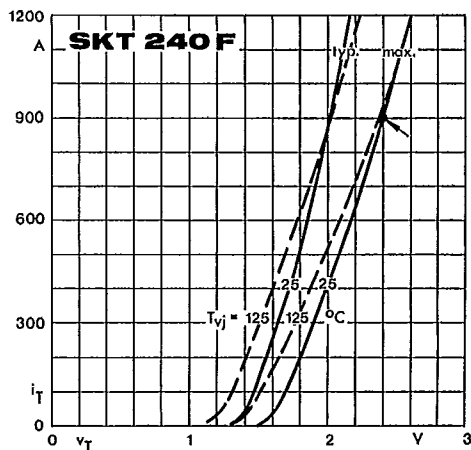


Fig. 9 a On-state characteristics

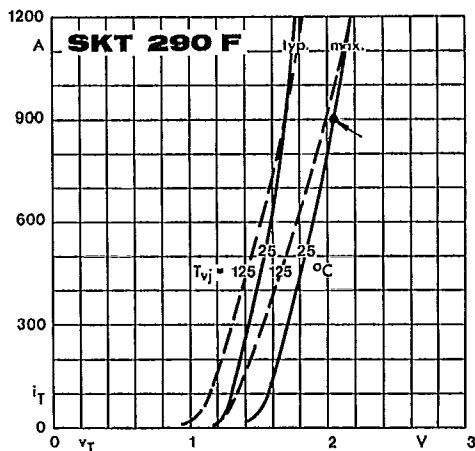


Fig. 9 b On-state characteristics

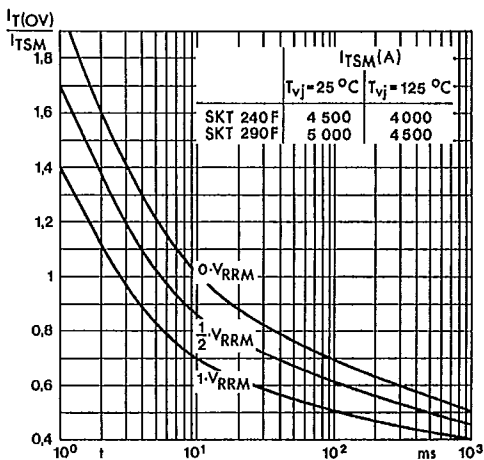


Fig. 10 Surge overload current vs. time

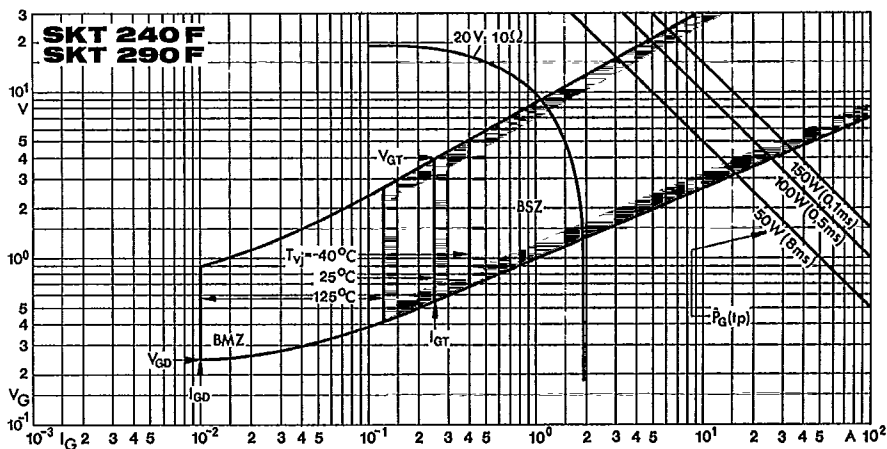


Fig. 11 Gate trigger characteristics