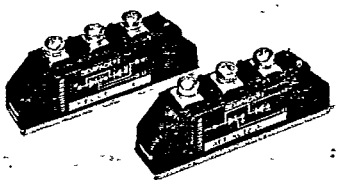
V_{DRM} V_{RRM} V	t_q (T_{vj} = 125 °C) µs	I_{TRMS} (maximum values for continuous operation) 75 A	75 A
		I_{TAV} (sin. 180; T_{case} = 89 °C; 50 Hz) 30 A	30 A
600	15	**SKFT 30/06 DS**	–
	20	**SKFT 30/06 DT**	–
800	15	**SKFT 30/08 DS**	–
	20	**SKFT 30/08 DT**	**SKFH 30/08 DT**
1000	15	**SKFT 30/10 DS**	–
	20	**SKFT 30/10 DT**	**SKFH 30/08 DT**
1200	20	**SKFT 30/12 DT**	**SKFH 30/12 DT**
	30	**SKFT 30/12 DV**	–

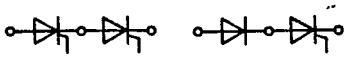
Symbol	Conditions		SKFT 30 SKFH 30[1]
I_{TM}	sin. 180; T_{case} = 60 °C; 500 Hz		150 A
I_{TSM}	T_{vj} = 25 °C		1000 A
	T_{vj} = 125 °C		900 A
i^2t	T_{vj} = 25 °C		5000 A^2s
	T_{vj} = 125 °C		4050 A^2s
t_{gd}	T_{vj} = 25 °C; I_G = 1 A; di_G/dt = 1 A/µs		1 µs
t_{gr}	$V_D = 0{,}67 \cdot V_{DRM}$		1 µs
$(di/dt)_{cr}$	non-repetitive/f = 50 ... 60 Hz		600 A/µs / 125 A/µs
$(dv/dt)_{cr}$	T_{vj} = 125 °C		500 V/µs
I_H	T_{vj} = 25 °C; typ./max.		150 mA/300 mA
I_L	T_{vj} = 25 °C; R_G = 33 Ω; typ./max.		400 mA/1000 mA
V_T	T_{vj} = 125 °C; I_T = 150 A; max.		2,25 V
$V_{T(TO)}$	T_{vj} = 125 °C		1,7 V
r_T	T_{vj} = 125 °C		4 mΩ
I_D; I_R	T_{vj} = 125 °C; V_{DRM}; V_{RRM}		20 mA
V_{GT}	T_{vj} = 25 °C		3 V
I_{GT}	T_{vj} = 25 °C		100 mA
V_{GD}	T_{vj} = 125 °C		0,25 V
I_{GD}	T_{vj} = 125 °C		8 mA
R_{thjc}	cont. } per thyristor/per module		0,6/0,3 °C/W
R_{thch}	} per thyristor/per module		0,2/0,1 °C/W
T_{vj}			−40 ... +125 °C
T_{stg}			−40 ... +125 °C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s/1 min.		3000 V~/2500 V~
M_1	Case to heatsink } SI units/ US units		5 Nm/44 lb. in. ± 15 %
M_2	Busbars to terminals } SI units/ US units		3 Nm/26 lb. in. ± 15 %
w	approx.		120 g
Case	→ page B 2–12	SKFT	A 5
		SKFH	A 8

[1] For the data of the diode see page B 2–7

SEMIPACK® 1
Fast Thyristor/ Diode Modules

SKFT 30 **SKFH 30**
Thyristor data[1]





SKFT SKFH

Features
- Heat transfer through ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. 63 532

Typical Applications
- Self-commutated inverters
- DC choppers
- AC motor speed control
- Inductive heating
- Uninterruptible power supplies
- Electronic welders
- General power switching applications

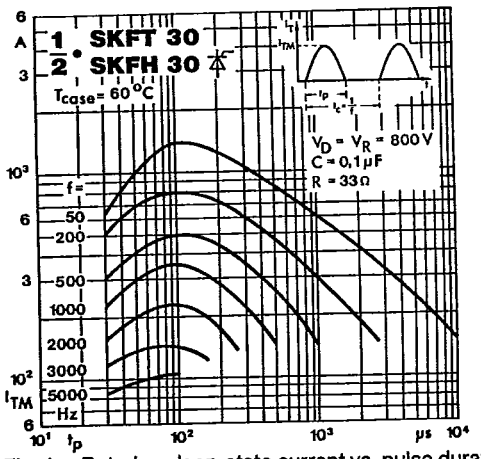


Fig. 1 a Rated peak on-state current vs. pulse duration

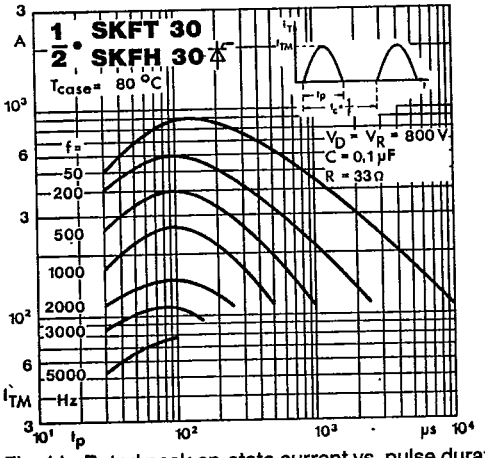


Fig. 1 b Rated peak on-state current vs. pulse duration

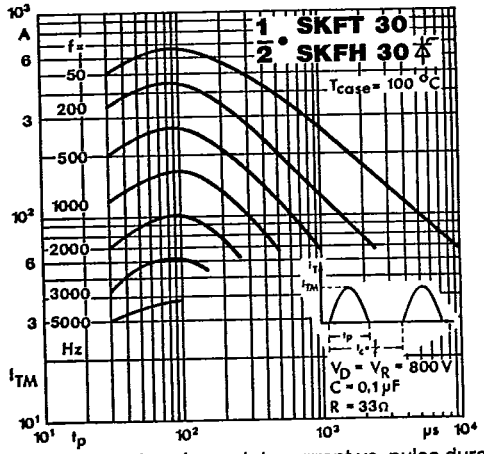


Fig. 1 c Rated peak on-state current vs. pulse duration

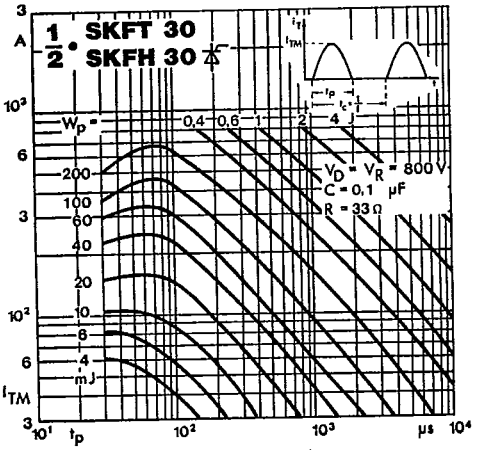


Fig. 2 Energy dissipation per pulse

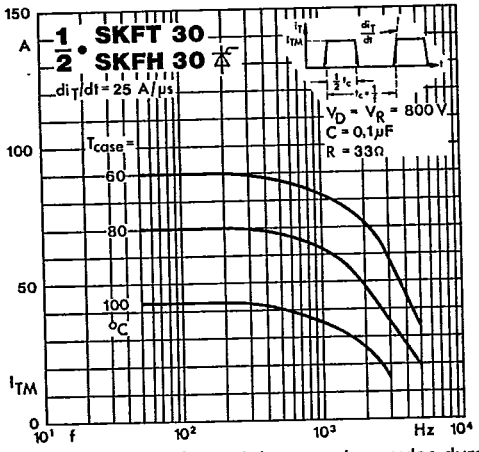


Fig. 3 a Rated peak on-state current vs. pulse duration

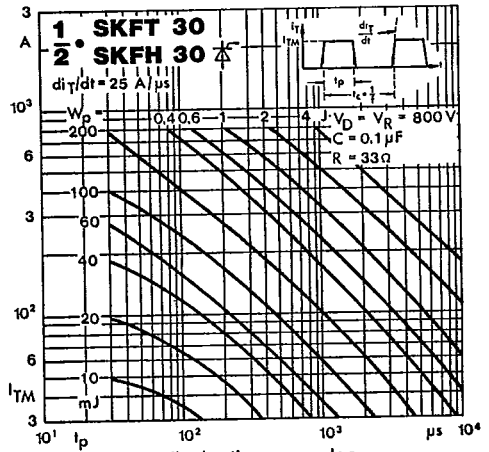


Fig. 4 a Energy dissipation per pulse

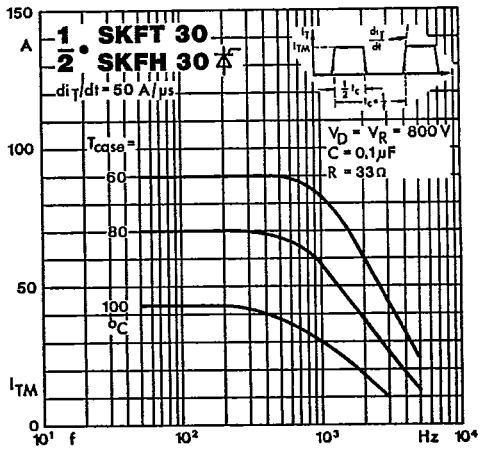


Fig. 3 b Rated peak on-state current vs. pulse duration

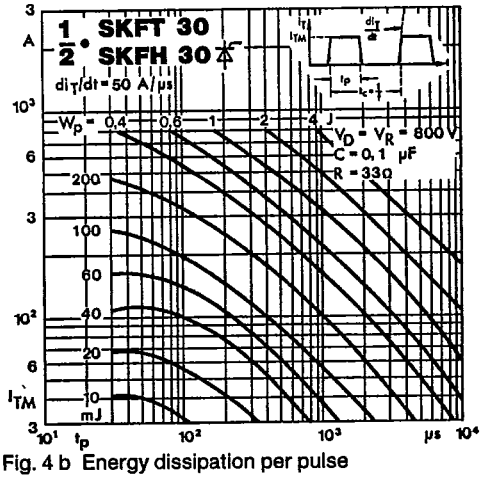


Fig. 4 b Energy dissipation per pulse

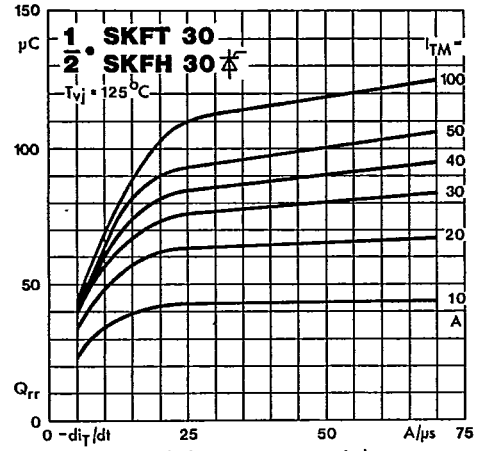


Fig. 5 Recovered charge vs. current decrease

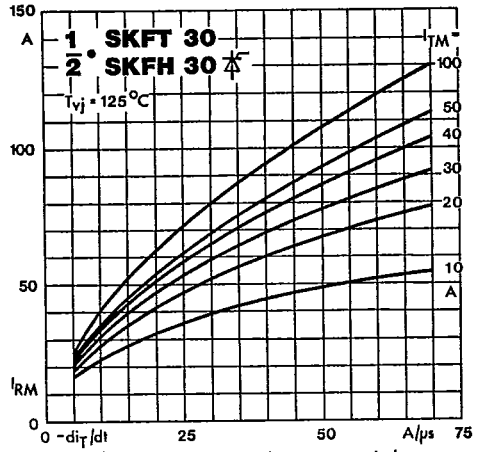


Fig. 6 Peak recovery current vs. current decrease

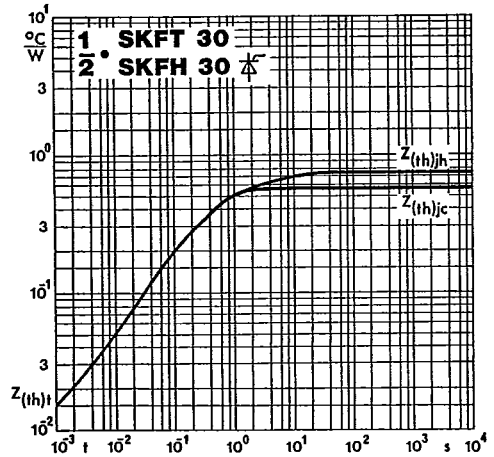


Fig. 7 Transient thermal impedance vs. time

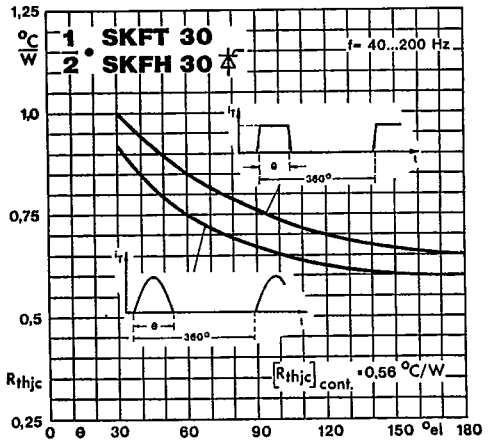


Fig. 8 Thermal resistance vs. conduction angle 40 . . . 200 Hz

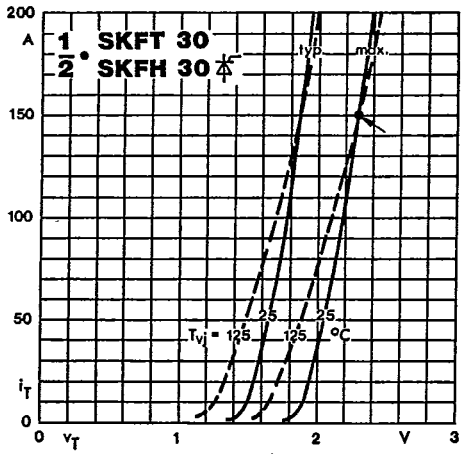


Fig. 9 On-state characteristics

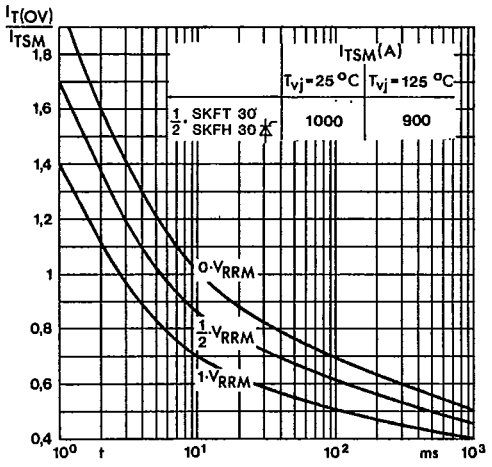


Fig. 10 Surge overload current vs. time

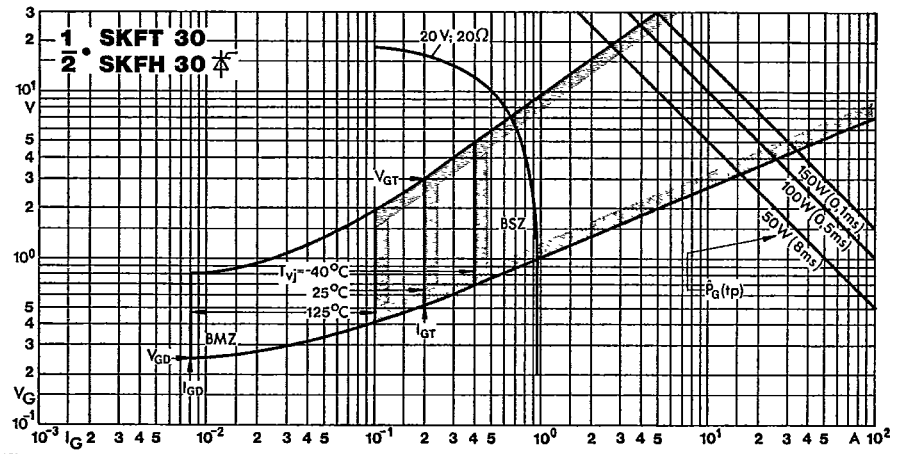


Fig. 11 Gate trigger characteristics