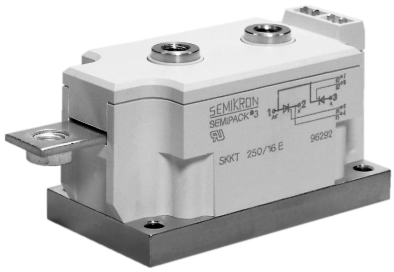
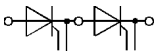
V_{RSM}	V_{RRM}	(dv/	I_{TRMS} (maximum values for continuous operation)			
	V_{DRM}	$dt)_{cr}$	350 A	420 A	350 A	420 A
			I_{TAV} (sin. 180; T_{case} = . . .)			
V	V	V/µs	220 A (88 °C)	260 A (82 °C)	220 A (88 °C)	260 A (82 °C)
			SKKT	**SKKT**	**SKKH**	**SKKH**
900	800	500	**210/08 D**	**250/08 D**	**–**	**–**
1300	1200	1000	**210/12 E**	**250/12 E**	**210/12 E**	**250/12 E**
1500	1400	1000	**210/14 E**	**250/14 E**	**210/14 E**	**250/14 E**
1700	1600	1000	**210/16 E**	**250/16 E**	**210/16 E**	**250/16 E**
1900	1800	1000	**210/18 E**	**250/18 E**	**210/18 E**	**250/18 E**
2100	2000	1000	**210/20 E**	**–**	**210/20 E**	**–**
2300	2200	1000	**210/22 E**	**–**	**210/22 E**	**–**

Symbol	Conditions		SKKT 210 SKKH 210	SKKT 250 SKKH 250	Units
I_{TAV}	sin. 180; (T_{case} = ...)		210 (90°C)	250 (85°C)	A
I_D	B2/B6	T_{amb} = 35 °C; P 16/170 F	420/550	450/585	A
I_{RMS}	W1/W3	T_{amb} = 35 °C; P 16/170 F	526/3 x 440	566/3 x 471	A
I_{TSM}	T_{vj} = 25 °C; 10 ms		8 500	9 000	A
	T_{vj} = 130 °C; 10 ms		7 500	8 000	A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms		361 000	405 000	A^2s
	T_{vj} = 130 °C; 8,3 ... 10 ms		281 000	320 000	A^2s
t_{gd}	T_{vj} = 25 °C; I_G = 1 A				
	di_G/dt = 1 A/µs		1		µs
t_{gr}	$V_D = 0{,}67 \cdot V_{DRM}$		2		µs
$(di/dt)_{cr}$	T_{vj} = 130 °C		250		A/µs
t_q	T_{vj} = 130 °C		typ. 50 ... 150		µs
I_H	T_{vj} = 25 °C; typ. / max.		150 / 500		mA
I_L	T_{vj} = 25 °C; R_G = 33 Ω; typ. / max.		0,3 / 2		A
V_T	T_{vj} = 25 °C; I_T = 750 A		max. 1,5	max. 1,4	V
$V_{T(TO)}$	T_{vj} = 130 °C		0,95	0,925	V
r_T	T_{vj} = 130 °C		0,6	0,45	mΩ
I_{DD}; I_{RD}	T_{vj} = 130 °C; $V_{RD} = V_{RRM}$				
	$V_{DD} = V_{DRM}$		50	50	mA
V_{GT}	T_{vj} = 25 °C; d.c.		3		V
I_{GT}	T_{vj} = 25 °C; d.c.		200		mA
V_{GD}	T_{vj} = 130 °C; d.c.		0,25		V
I_{GD}	T_{vj} = 130 °C; d.c.		10		mA
R_{thjc}	cont.	per thyristor / per module	0,14 / 0,07		°C/W
	sin. 180		0,15 / 0,075		°C/W
	rec. 120		0,165 / 0,083		°C/W
R_{thch}			0,04 / 0,02		°C/W
T_{vj}, T_{stg}			– 40 ... + 130		°C
V_{isol}	a. c. 50 Hz; r.m.s; 1 s/1 min		3600 / 3000		V~
M_1	to heatsink	SI (US) units	5 (44 lb. in.) ± 15 %[2]		Nm
M_2	to terminals	SI (US) units	9 (80 lb. in.) ± 15 %[3]		Nm
a			$5 \cdot 9{,}81$		m/s^2
w	approx.		940		g
Case	→ page B 1 – 80		SKKT: A 25 SKKH: A 26 SKMT: A 64		

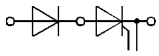
SEMIPACK® 3
Thyristor / Diode Modules

SKKT 210 **SKKH 210**
SKKT 250 **SKKH 250**
SKMT 250[1)]





SKKT



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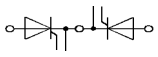


SKMT

Features

- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precious metal pressure contacts for high reliability
- Thyristor with amplifying gate
- UL recognized, file no. E 63 532

Typical Applications

- DC motor control (e.g. for machine tools)
- Temperature control (e.g. for ovens, chemical processes)
- Professional light dimming (studios, theaters)

[1)] SKMT 250 available on request
[2)] See the assembly instructions
[3)] The screws must be lubricated

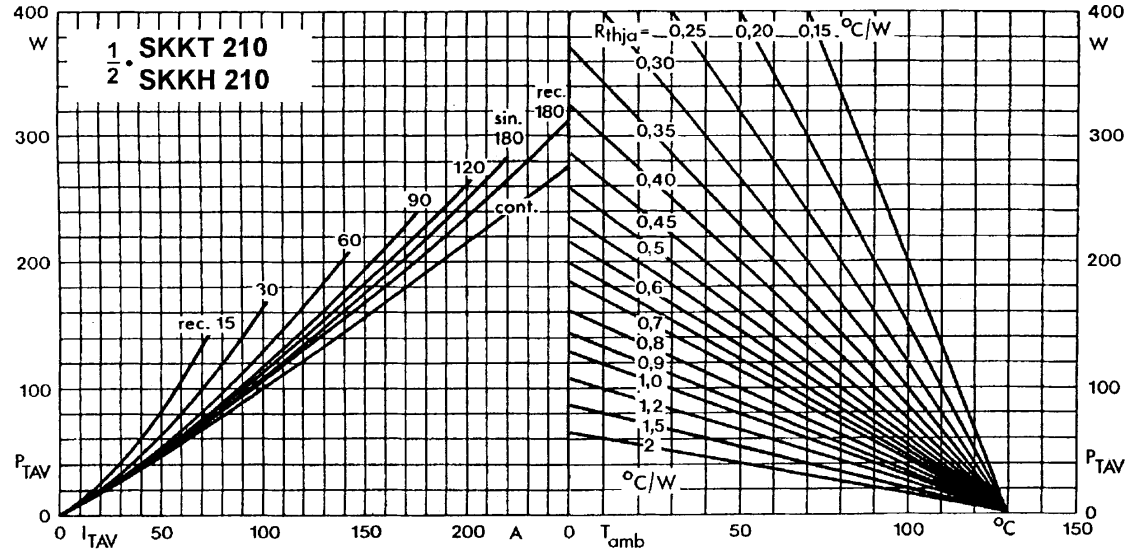


Fig. 1 a Power dissipation per thyristor vs. on-state current and ambient temperature

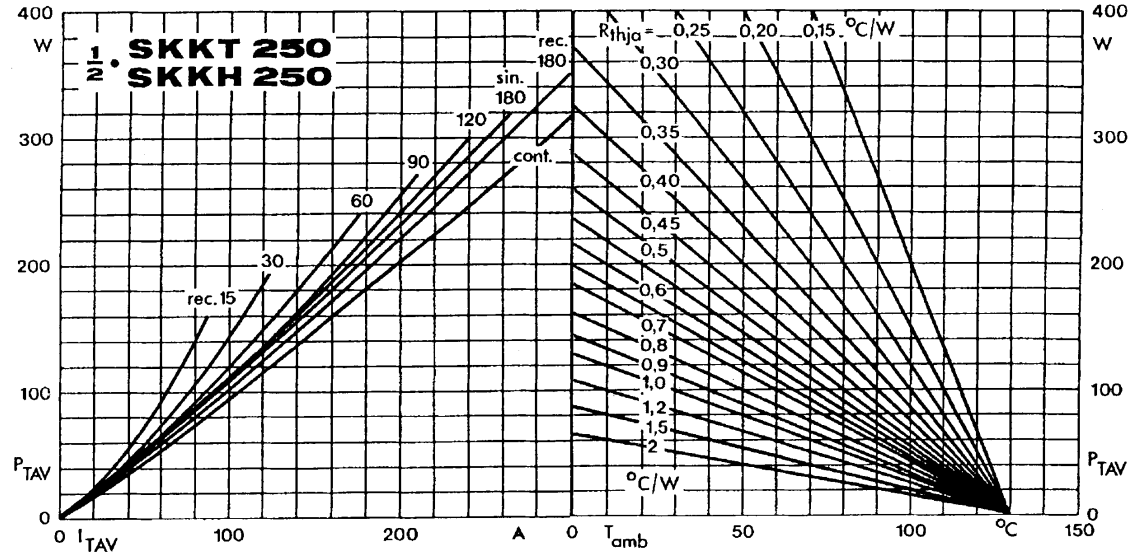


Fig. 1 b Power dissipation per thyristor vs. on-state current and ambient temperature

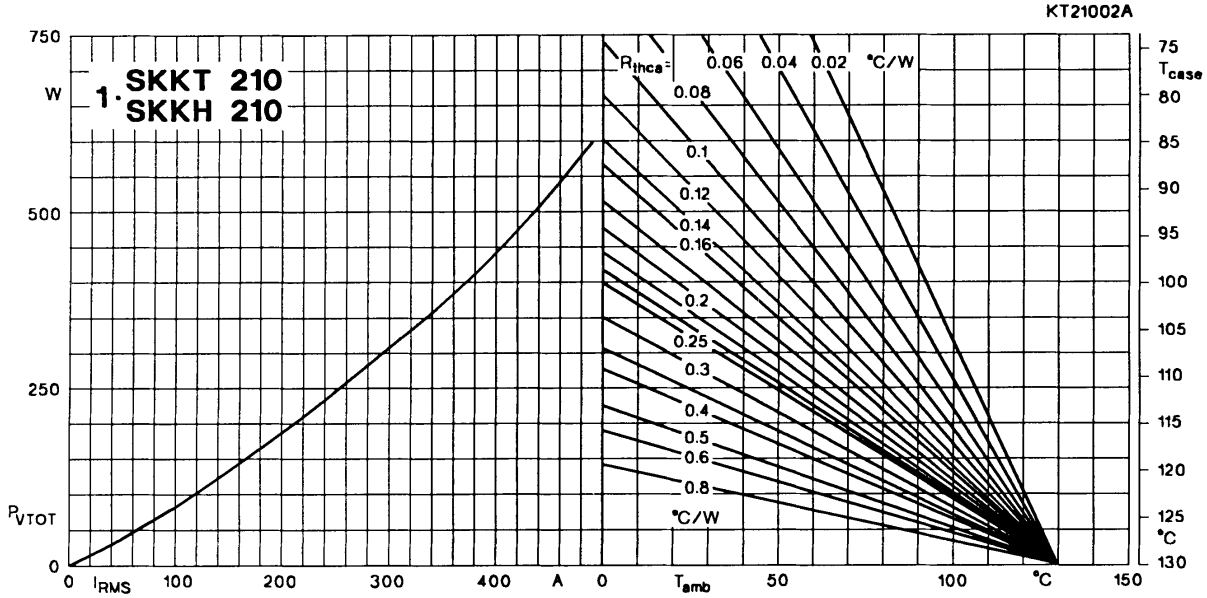


Fig. 2 a Power dissipation per module vs. rms current and case temperature

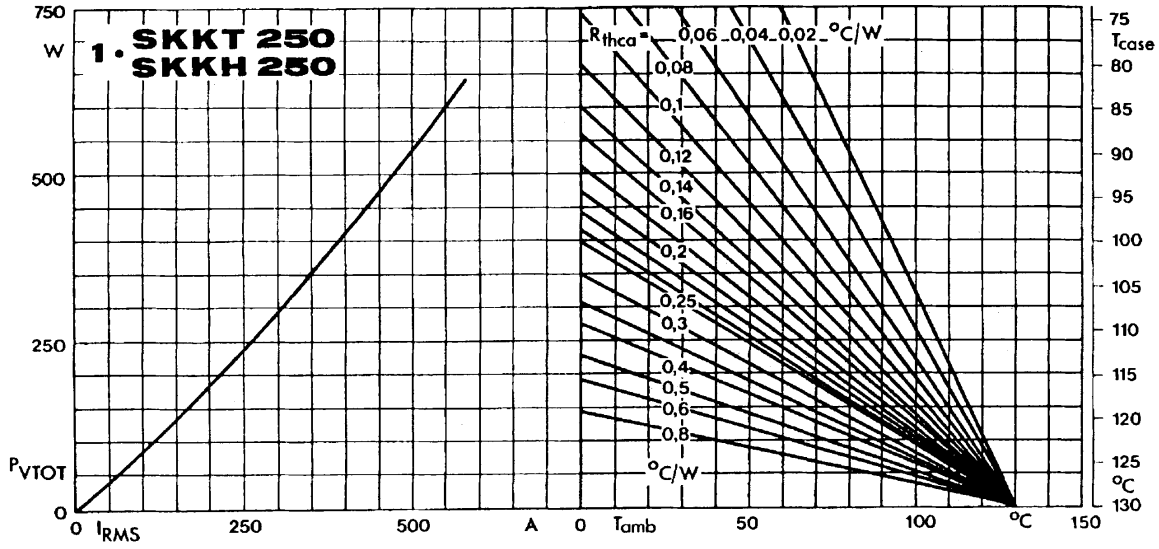


Fig. 2 b Power dissipation per module vs. rms current and case temperature

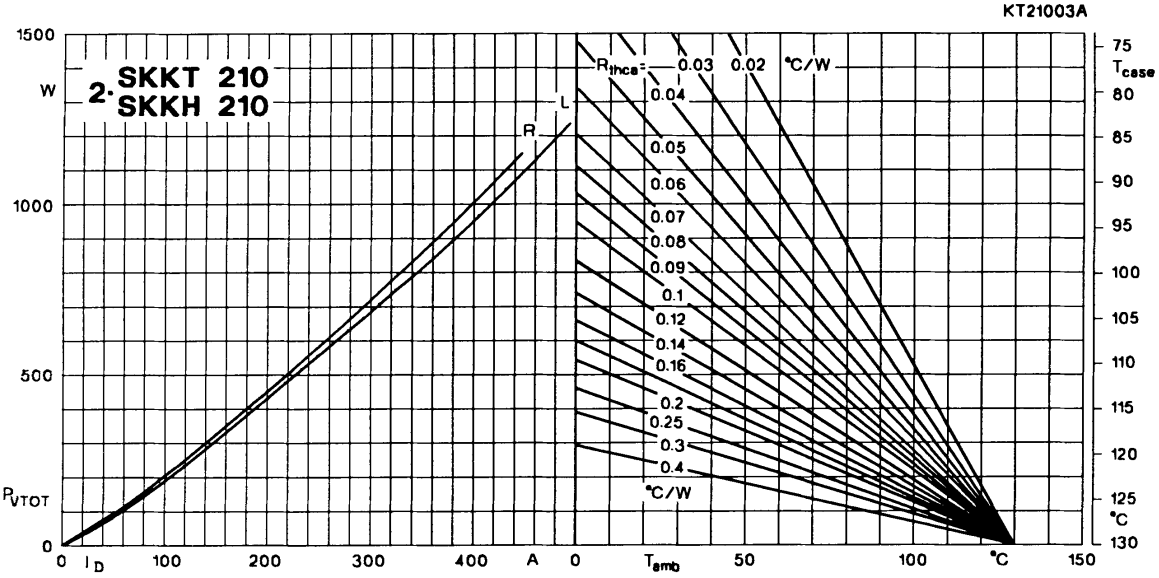


Fig. 3 a Power dissipation of two modules vs. direct current and case temperature

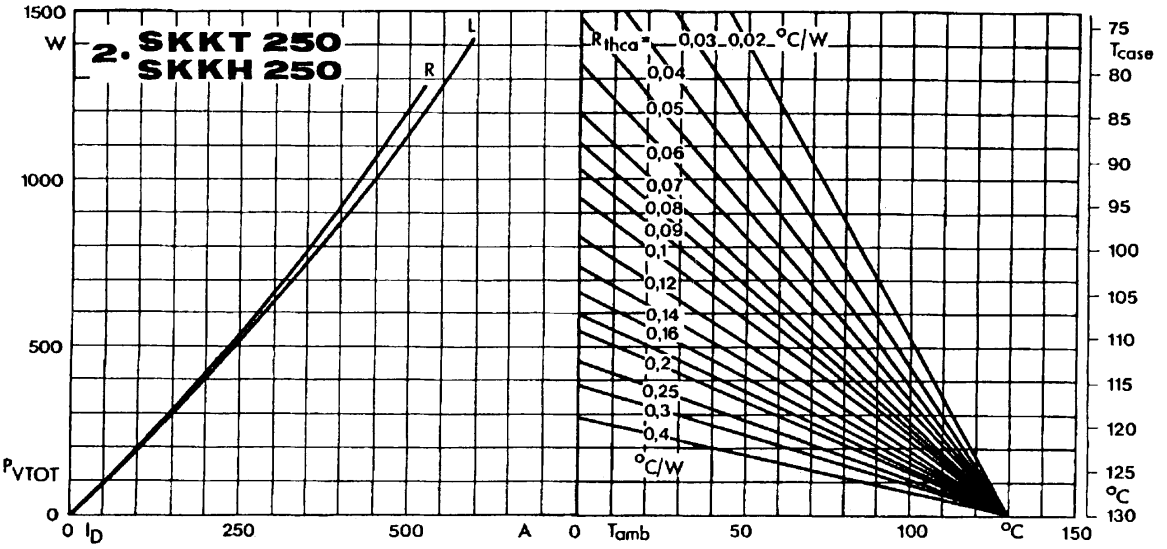


Fig. 3 b Power dissipation of two modules vs. direct current and case temperature

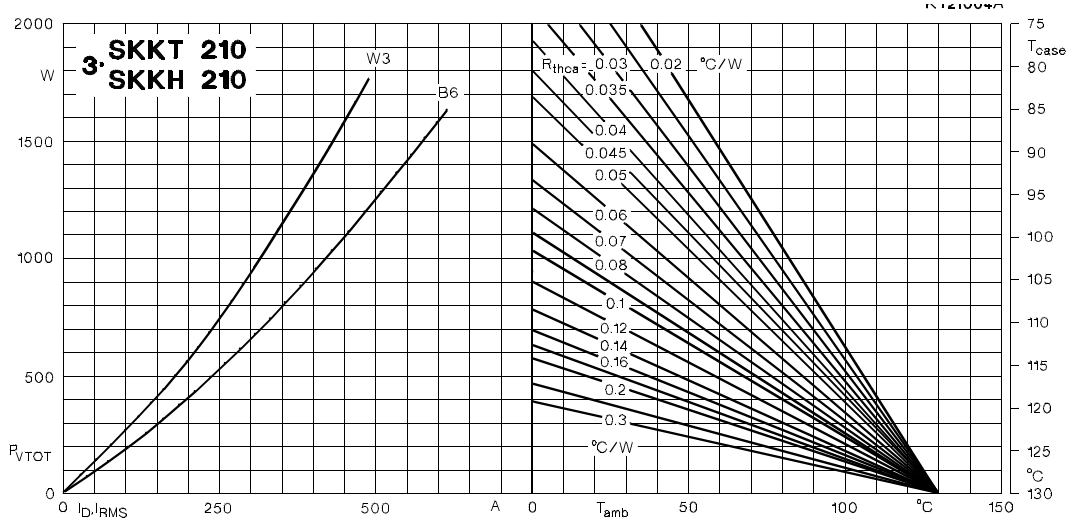


Fig. 4 a Power dissipation of three modules vs. direct and rms current and case temperature

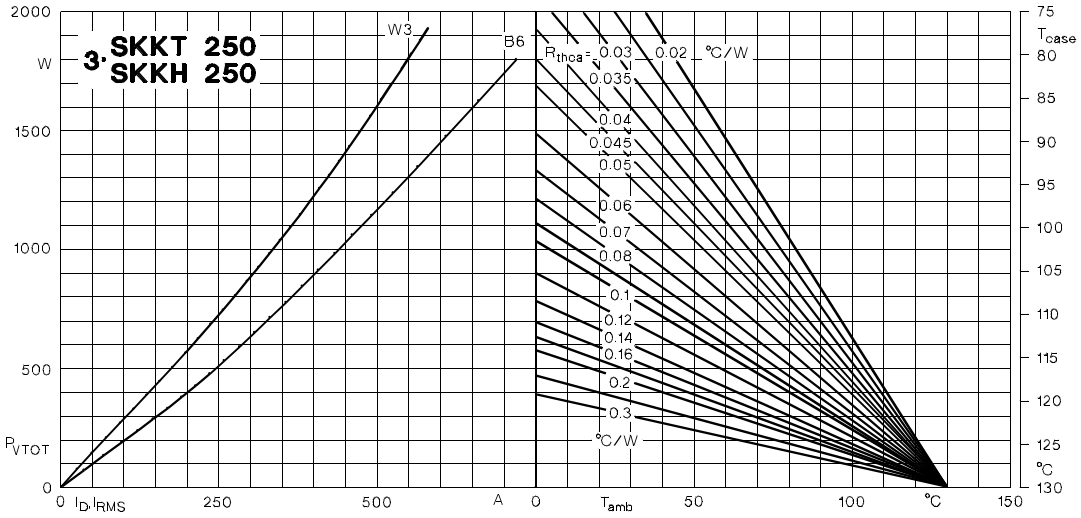


Fig. 4 b Power dissipation of three modules vs. direct and rms current and case temperature

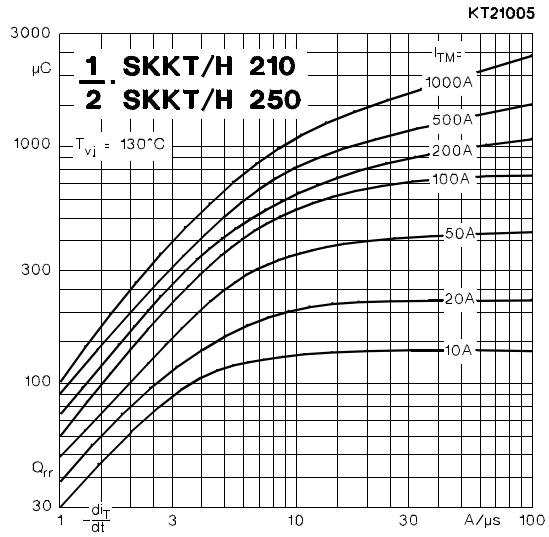


Fig. 5 Recovered charge vs. current decrease

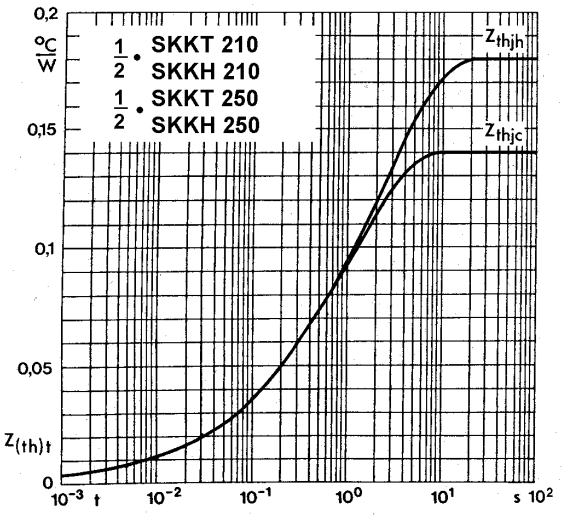


Fig. 6 Transient thermal impedance vs. time

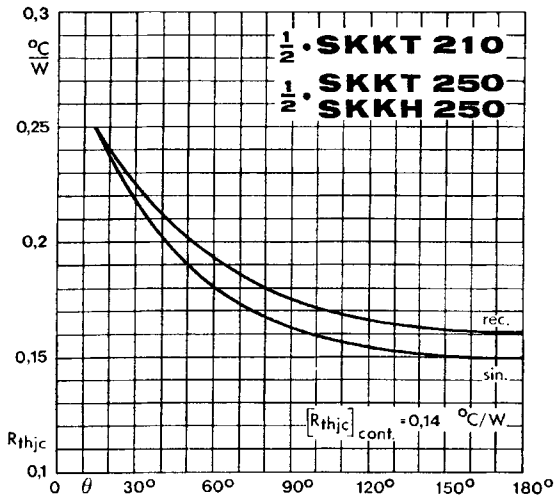


Fig. 7 Thermal resistance vs. conduction angle

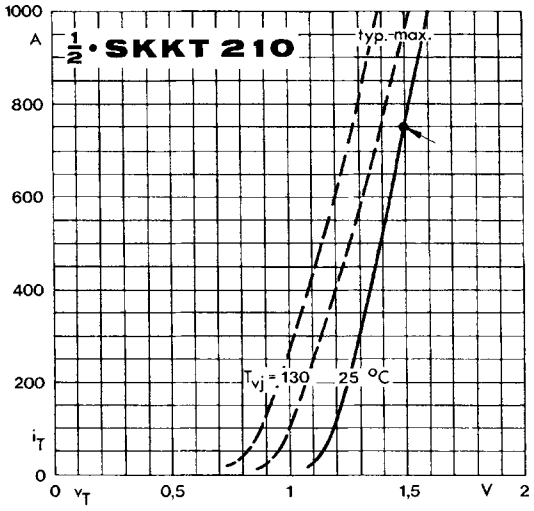


Fig. 8 a On-state characteristics

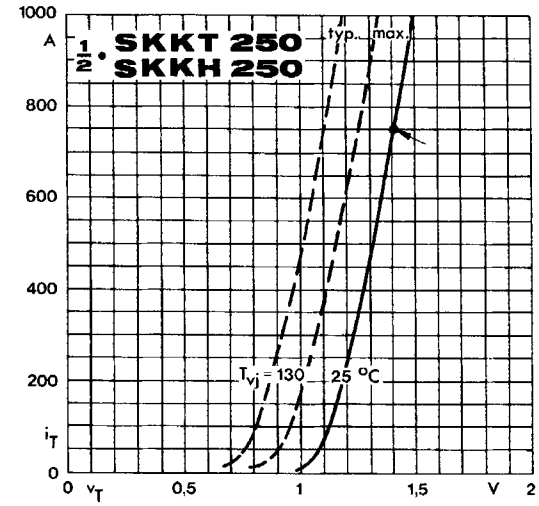


Fig. 8 b On-state characteristics

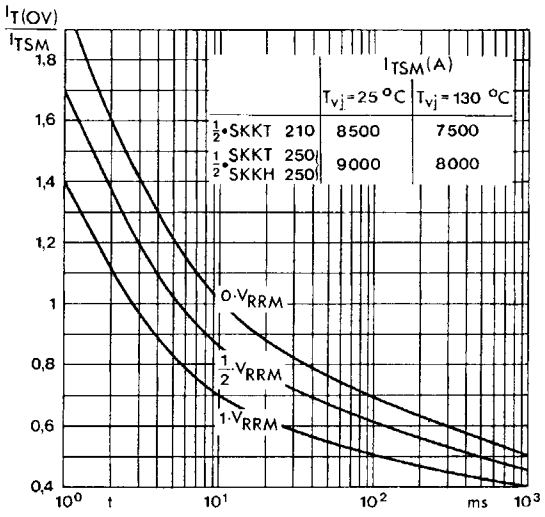


Fig. 9 Surge overload current vs. time

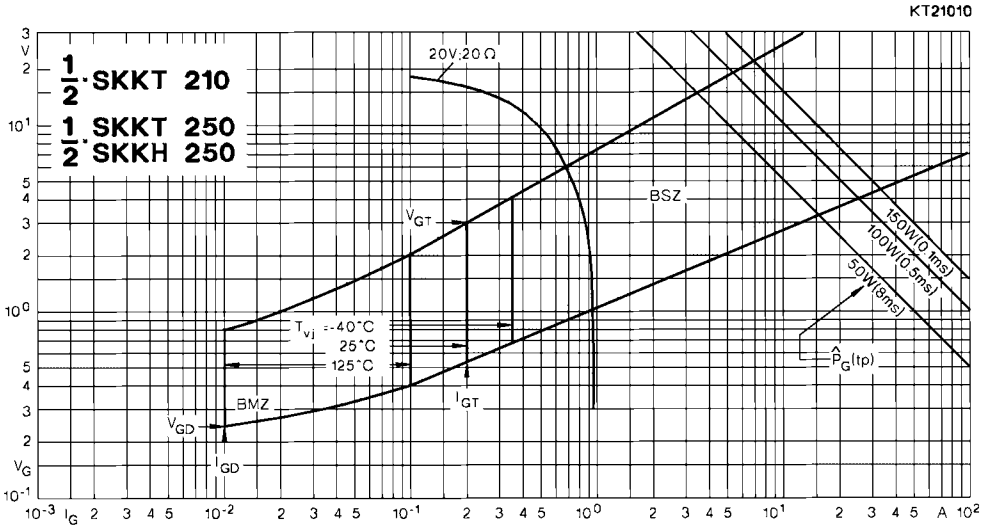
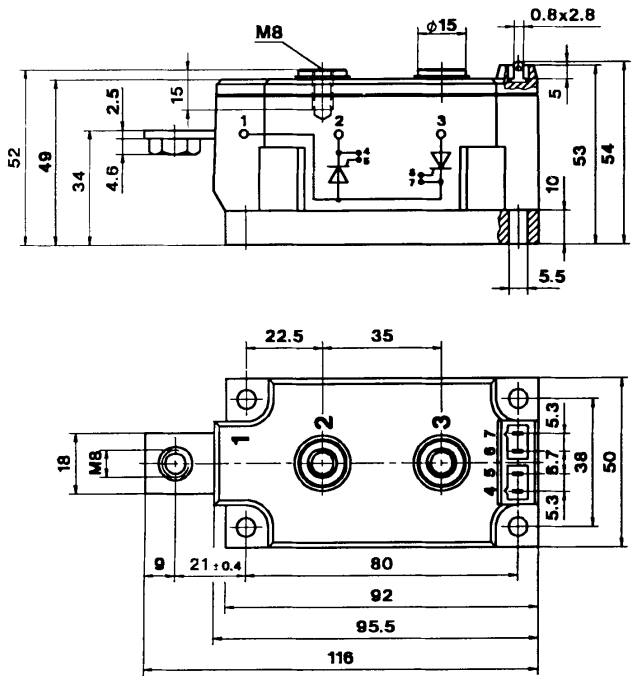


Fig. 10 Gate trigger characteristics

SKKT 210, SKKT 250

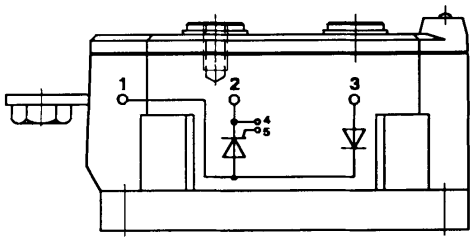
Case A 25

SEMIPACK 3 UL recognized, file no. E 63 532



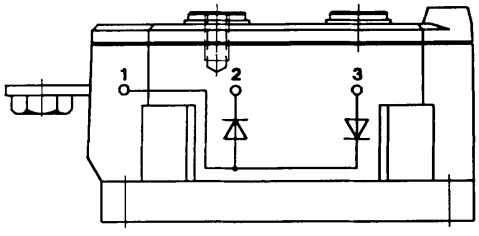
SKKH 210, SKKH 250

Case A 26



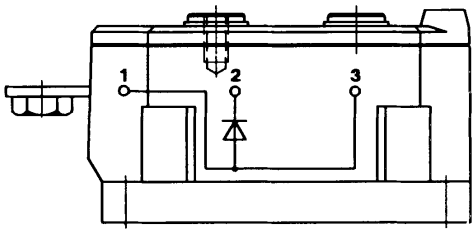
SKKD 260

Case A 27



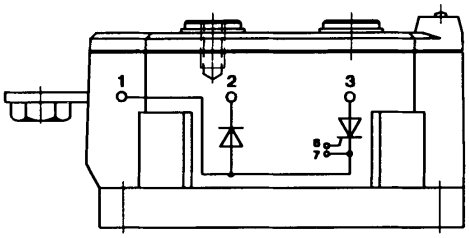
SKKE 260

Case A 28



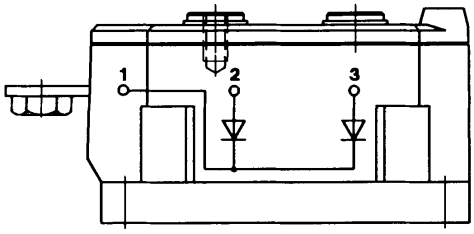
SKKL 210, SKKL 250

Case A 35



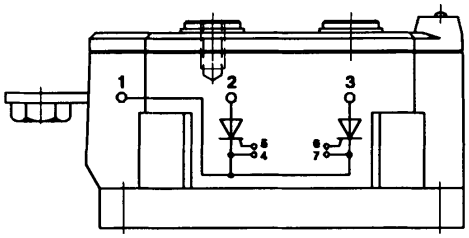
SKMD 260

Case A 58



SKMT 250

Case A 64



Dimensions in mm

