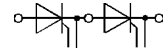


## SKKT 330, SKKH 330

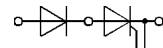
V <sub>RSM</sub>	V <sub>RRM</sub>	(dv/dt) <sub>cr</sub>	I <sub>TRMS</sub> (maximum values for continuous operation)	
			510 A	
V	V	V/μs	I <sub>TAV</sub> (sin. 180; T <sub>case</sub> = 80 °C)	
			330 A	
900	800	1000	SKKT 330/08 E	SKKH 330/08 E
1300	1200	1000	SKKT 330/12 E	SKKH 330/12 E
1500	1400	1000	SKKT 330/14 E	SKKH 330/14 E
1700	1600	1000	SKKT 330/16 E	SKKH 330/16 E
1900	1800	1000	SKKT 330/18 E	SKKH 330/18 E

## SEMIPACK® 3 Thyristor / Diode Modules

### SKKT 330 SKKH 330



SKKT



SKKH

Symbol	Conditions	SKKT 330 SKKH 330	Units
I <sub>TAV</sub>	sin. 180; T <sub>case</sub> = 80 °C T <sub>case</sub> = 85 °C	330 305	A A
I <sub>TSM</sub>	T <sub>vj</sub> = 25 °C; 10 ms T <sub>vj</sub> = 130 °C; 10 ms	9 500 8 000	A A
i <sup>2</sup> t	T <sub>vj</sub> = 25 °C; 8,3 ... 10 ms T <sub>vj</sub> = 130 °C; 8,3 ... 10 ms	451 000 320 000	A <sup>2</sup> s A <sup>2</sup> s
t <sub>gd</sub>	T <sub>vj</sub> = 25 °C; I <sub>G</sub> = 1 A di <sub>G</sub> /dt = 1 A/μs	1	μs
t <sub>gr</sub>	V <sub>D</sub> = 0,67 · V <sub>DRM</sub>	2	μs
(di/dt) <sub>cr</sub>	T <sub>vj</sub> = 130 °C	250	A/μs
t <sub>q</sub>	T <sub>vj</sub> = 130 °C	typ. 50 ... 150	μs
I <sub>H</sub>	T <sub>vj</sub> = 25 °C; typ. / max.	150 / 500	mA
I <sub>L</sub>	T <sub>vj</sub> = 25 °C; R <sub>G</sub> = 33 Ω; typ. / max.	0,3 / 2	A
V <sub>T</sub>	T <sub>vj</sub> = 25 °C; I <sub>T</sub> = 750 A	max. 1,4	V
V <sub>T(TO)</sub>	T <sub>vj</sub> = 130 °C	0,80	V
r <sub>T</sub>	T <sub>vj</sub> = 130 °C	0,6	mΩ
I <sub>DD</sub> ; I <sub>RD</sub>	T <sub>vj</sub> = 130 °C; V <sub>RD</sub> = V <sub>RRM</sub> V <sub>DD</sub> = V <sub>DRM</sub>	50	mA
V <sub>GT</sub>	T <sub>vj</sub> = 25 °C; d.c.	3	V
I <sub>GT</sub>	T <sub>vj</sub> = 25 °C; d.c.	200	mA
V <sub>GD</sub>	T <sub>vj</sub> = 130 °C; d.c.	0,25	V
I <sub>GD</sub>	T <sub>vj</sub> = 130 °C; d.c.	10	mA
R <sub>thjc</sub>	cont. per thyristor / per module sin. 180 per thyristor / per module rec. 120 per thyristor / per module	0,11 / 0,055 0,116 / 0,058 0,13 / 0,065	°C/W °C/W °C/W
R <sub>thch</sub> T <sub>vj</sub> , T <sub>stg</sub>	per thyristor / per module	0,04 / 0,02 - 40 ... + 130	°C/W °C
V <sub>isol</sub>	a. c. 50 Hz; r.m.s.; 1 s/1 min	3600 / 3000	V~
M <sub>1</sub>	to heatsink } SI (US) units to terminals }	5 (44 lb. in.) ± 15 % <sup>1)</sup>	Nm
M <sub>2</sub>		9 (80 lb. in.) ± 15 % <sup>2)</sup>	Nm
a		5 · 9,81	m/s <sup>2</sup>
w	approx.	750	g
Case		SKKT 330: A 73 a SKKH 330: A 76 a	

### 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) See the assembly instructions  
2) The screws must be lubricated

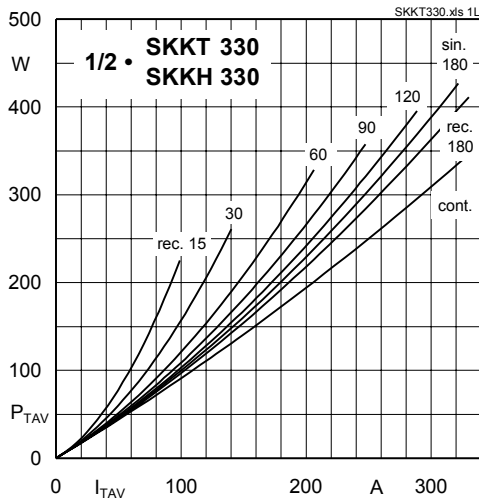


Fig. 1L Power dissipation per thyristor vs. on-state current

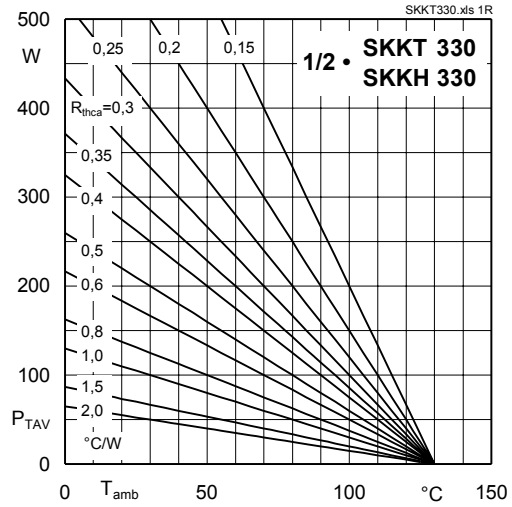


Fig. 1R Power dissipation per thyristor vs. ambient temp.

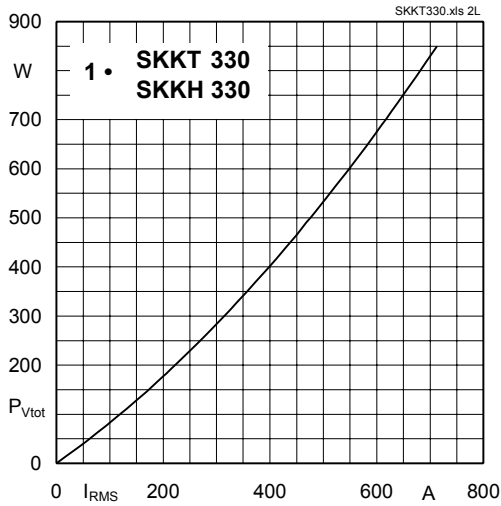


Fig. 2L Power dissipation per module vs. rms current

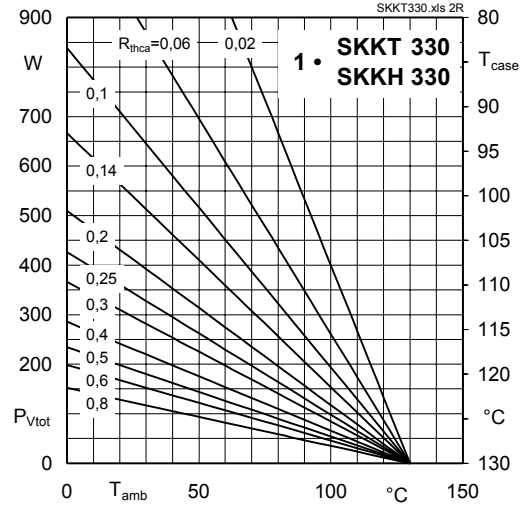


Fig. 2R Power dissipation per module vs. case temp.

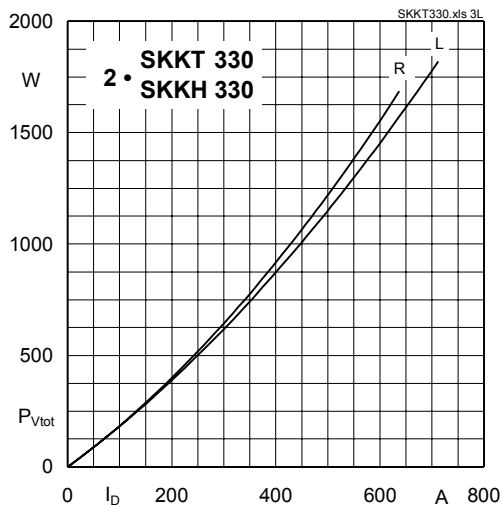


Fig. 3L Power dissipation of two modules vs. direct current

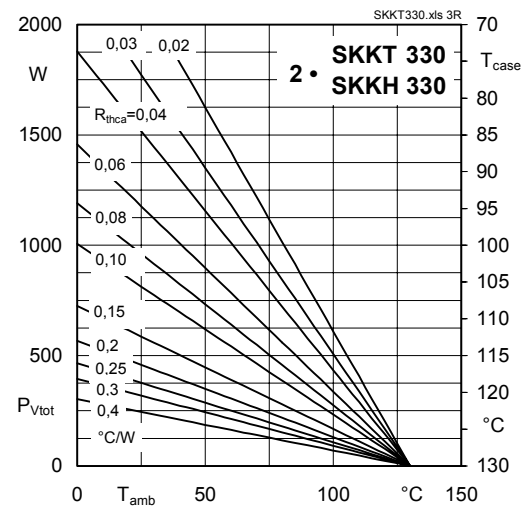


Fig. 3R Power dissipation of two modules vs. case temp.

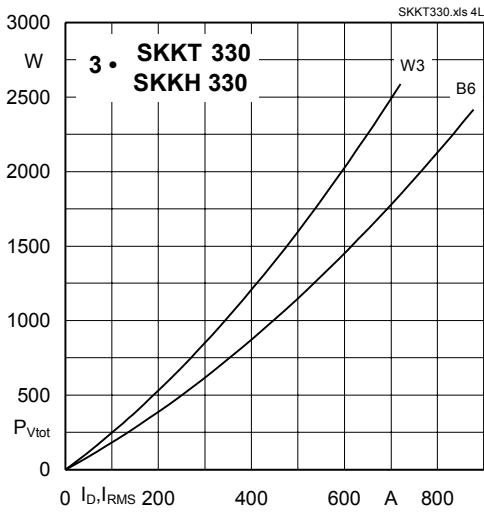


Fig. 4L Power dissipation of three modules vs. direct and rms current

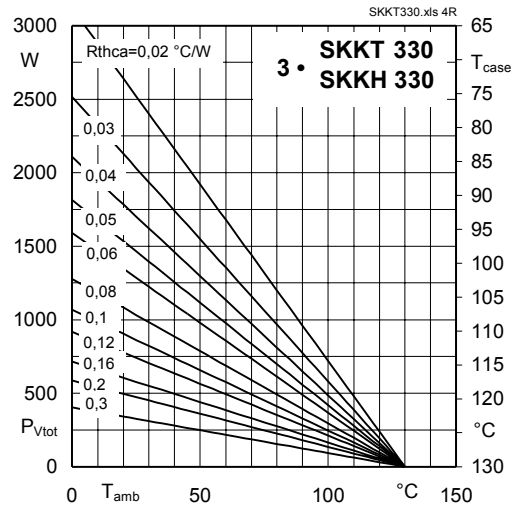


Fig. 4R Power dissipation of three modules vs. case temp.

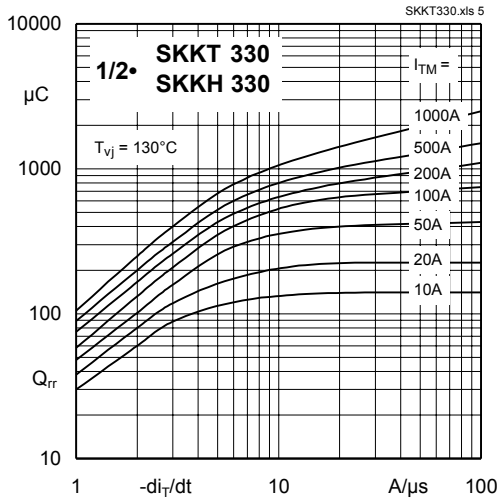


Fig. 5 Recovered charge vs. current decrease

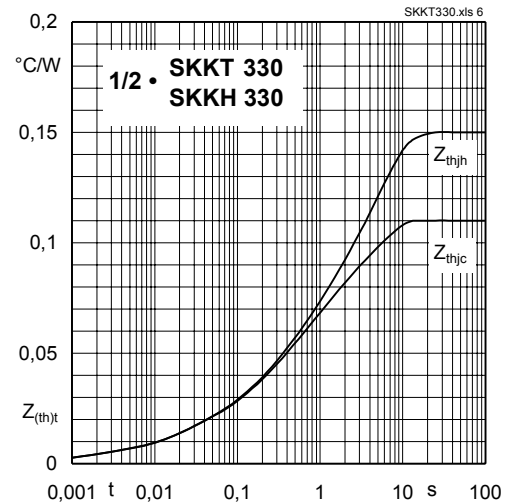


Fig. 6 Transient thermal impedance vs. time

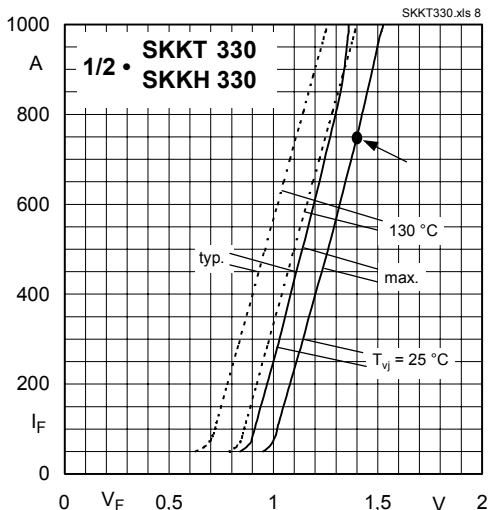


Fig. 8 On-state characteristics

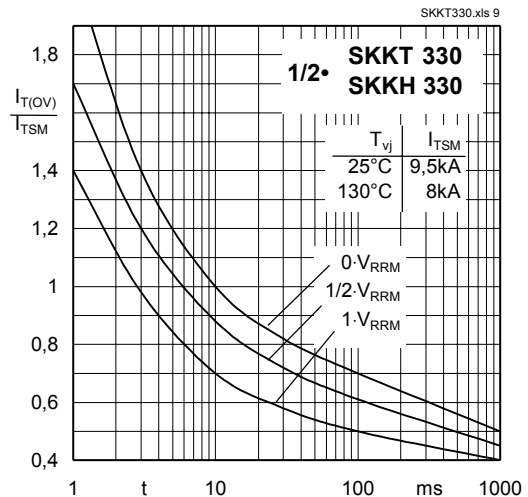


Fig. 9 Surge overload current vs. time

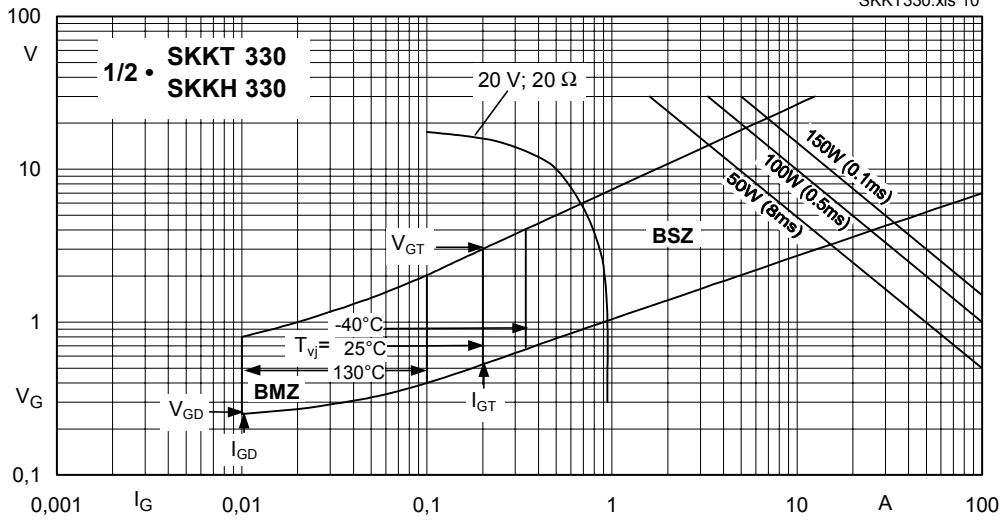
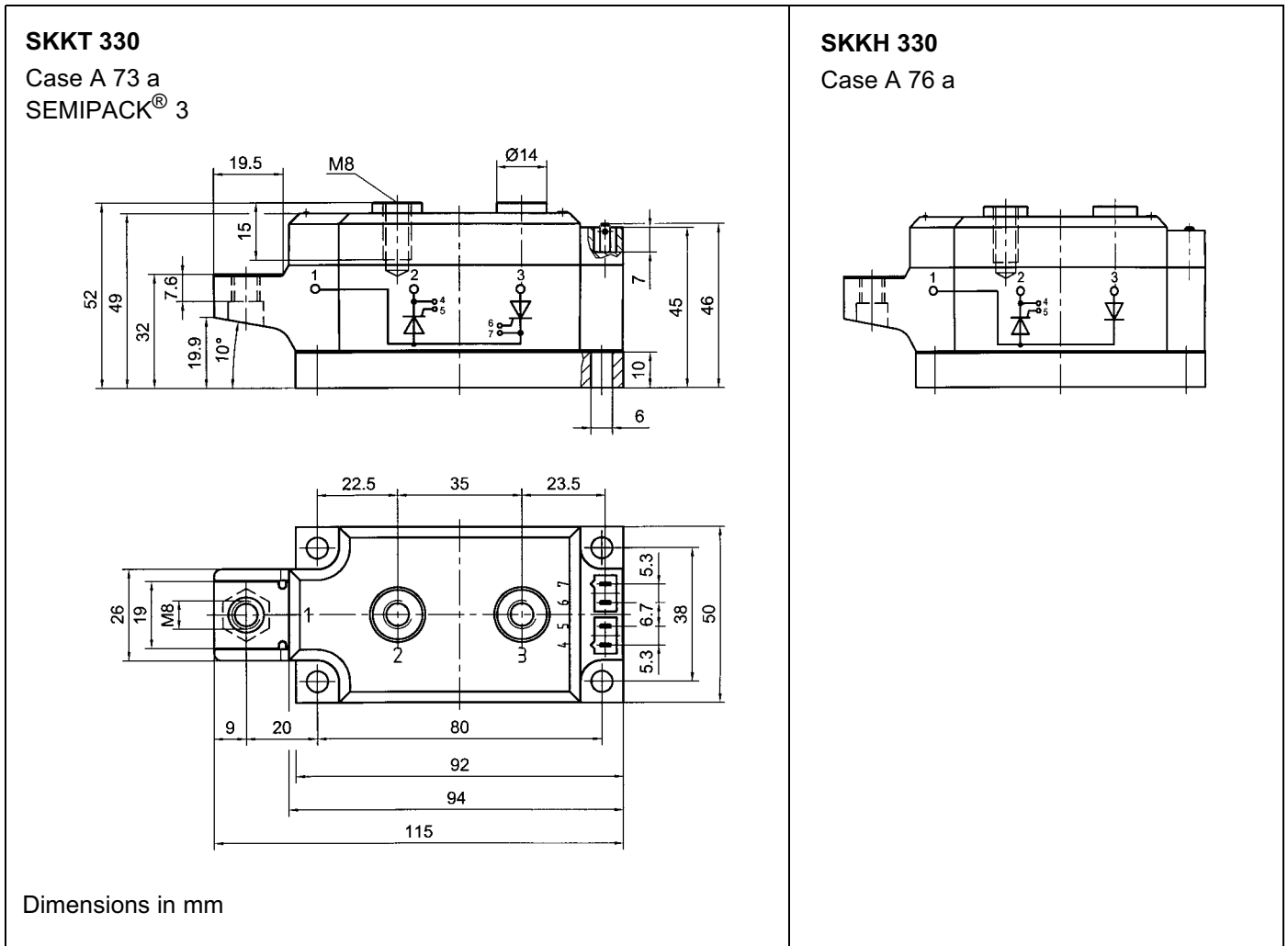


Fig. 10 Gate trigger characteristics



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