# SKKT 330, SKKH 330



SEMIPACK<sup>®</sup> 3

Thyristor / Diode Modules

### SKKH 330 SKKT 330

Features

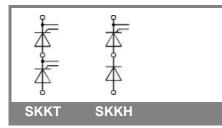
- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precious metal pressure contacts for high reliability
- Thyristor with amplifying gate
- UL recognized, file no. E 63 532

### **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 instruction

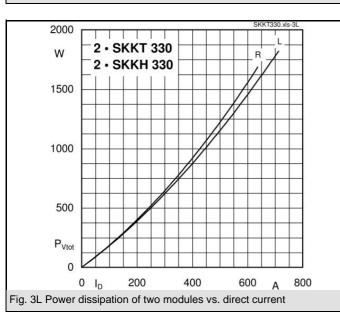
V <sub>RSM</sub>	V <sub>RRM</sub> , V <sub>DRM</sub>	I <sub>TRMS</sub> = 510 A (maximum value for continuous operation)		
V	V	I <sub>TAV</sub> = 330 A (sin. 180; T <sub>c</sub> = 80 °C)		
900	800	SKKT 330/08E	SKKH 330/08E	
1300	1200	SKKT 330/12E	SKKH 330/12E	
1700	1600	SKKT 330/16E	SKKH 330/16E	
1900	1800	SKKT 330/18E	SKKH 330/18E	

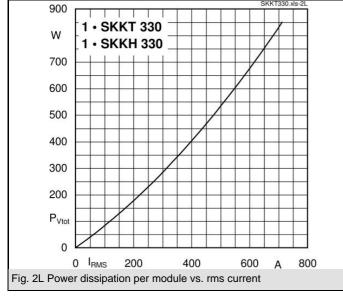
Symbol	Conditions	Values	Units
ITAV	sin. 180; T <sub>c</sub> = 85 (100) °C;	305 (225 )	А
I <sub>D</sub>	P16/200F; T <sub>a</sub> = 35 °C; B2 / B6	520 / 650	А
I <sub>RMS</sub>	P16/200F; T <sub>a</sub> = 35 °C; W1 / W3	585 / 3 * 485	А
I <sub>TSM</sub>	T <sub>vi</sub> = 25 °C; 10 ms	9500	Α
	T <sub>vi</sub> = 130 °C; 10 ms	8000	A
i²t	T <sub>vi</sub> = 25 °C; 8,3 10 ms	451000	A²s
	T <sub>vj</sub> = 130 °C; 8,3 10 ms	320000	A²s
V <sub>T</sub>	T <sub>vi</sub> = 25 °C; I <sub>T</sub> = 750 A	max. 1,4	V
V <sub>T(TO)</sub>	T <sub>vi</sub> = 130 °C	max. 0,8	V
r <sub>T</sub>	T <sub>vi</sub> = 130 °C	max. 0,6	mΩ
I <sub>DD</sub> ; I <sub>RD</sub>	$T_{vj}$ = 130 °C; $V_{RD}$ = $V_{RRM}$ ; $V_{DD}$ = $V_{DRM}$	max. 85	mA
gd	T <sub>vj</sub> = 25 °C; I <sub>G</sub> = 1 A; di <sub>G</sub> /dt = 1 A/µs	1	μs
gr	V <sub>D</sub> = 0,67 * V <sub>DRM</sub>	2	μs
(di/dt) <sub>cr</sub>	T <sub>vi</sub> = 130 °C	max. 250	A/µs
(dv/dt) <sub>cr</sub>	T <sub>vi</sub> = 130 °C	max. 1000	V/µs
t <sub>q</sub>	T <sub>vj</sub> = 130 °C ,	50 150	μs
н Н	T <sub>vj</sub> = 25 °C; typ. / max.	150 / 500	mA
I <sub>L</sub>	$T_{vj}$ = 25 °C; $R_G$ = 33 $\Omega$ ; typ. / max.	300 / 2000	mA
V <sub>GT</sub>	T <sub>vj</sub> = 25 °C; d.c.	min. 3	V
I <sub>GT</sub>	$T_{vj} = 25 \text{ °C}; \text{ d.c.}$	min. 200	mA
V <sub>GD</sub>	T <sub>vj</sub> = 130 °C; d.c.	max. 0,25	V
I <sub>GD</sub>	T <sub>vj</sub> = 130 °C; d.c.	max. 10	mA
R <sub>th(j-c)</sub>	cont.; per thyristor / per module	0,11 / 0,055	K/W
R <sub>th(j-c)</sub>	sin. 180; per thyristor / per module	0,116 / 0,058	K/W
R <sub>th(j-c)</sub>	rec. 120; per thyristor / per module	0,13 / 0,065	K/W
R <sub>th(c-s)</sub>	per thyristor / per module	0,04 / 0,02	K/W
T <sub>vj</sub>		- 40 + 130	°C
T <sub>stg</sub>		- 40 + 130	°C
V <sub>isol</sub>	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	٧~
M <sub>s</sub>	to heatsink	5 ± 15 % <sup>1)</sup>	Nm
Mt	to terminals	9 ± 15 %	Nm
а		5 * 9,81	m/s²
m	approx.	600	g
Case	SKKT	A 73b	
	SKKH	A 76b	

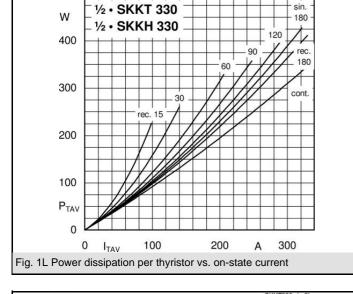


#### © by SEMIKRON

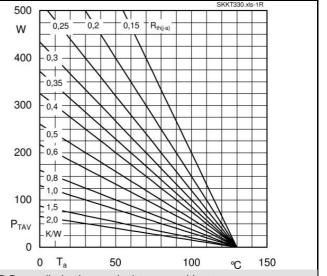
#### 18-03-2011

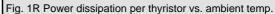


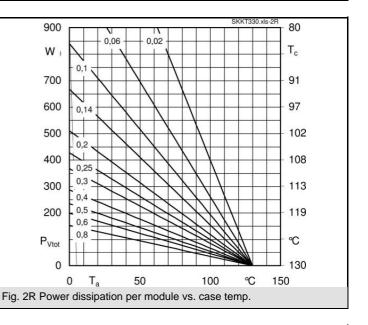


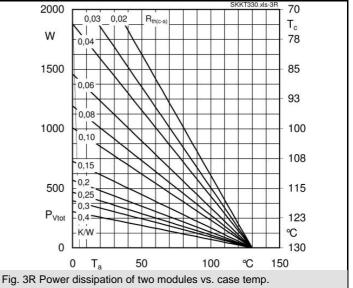


500

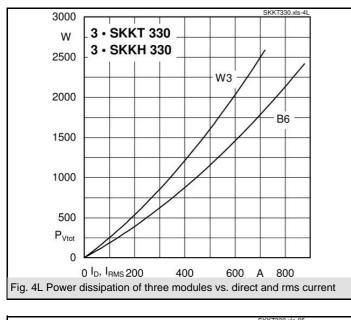


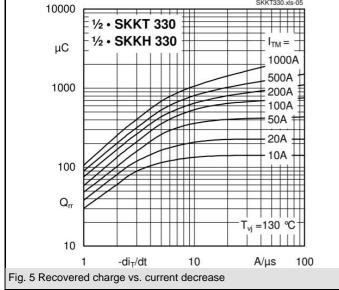


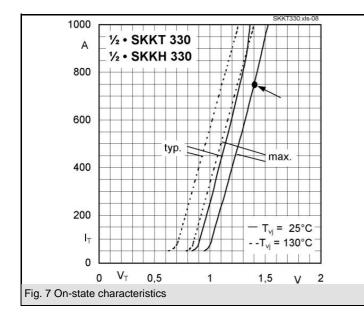


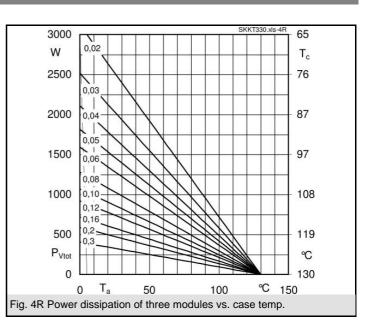


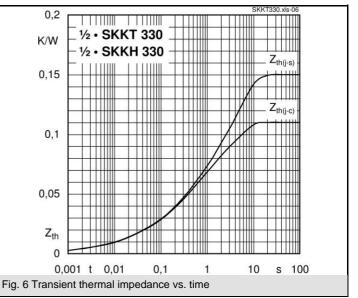
## SKKT 330, SKKH 330

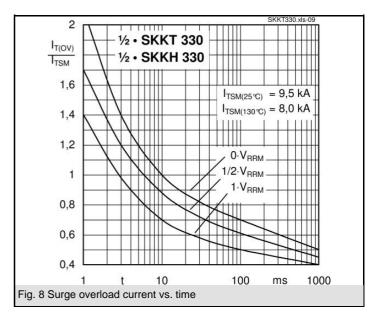






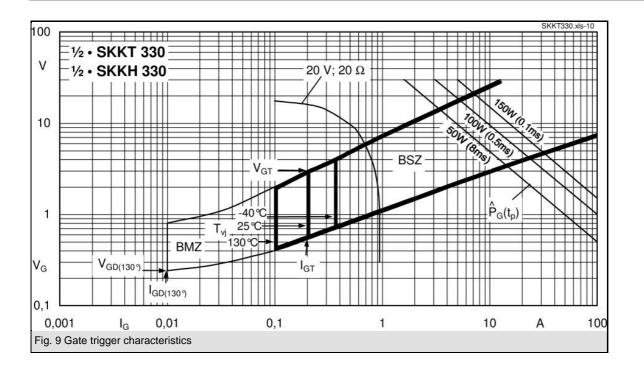


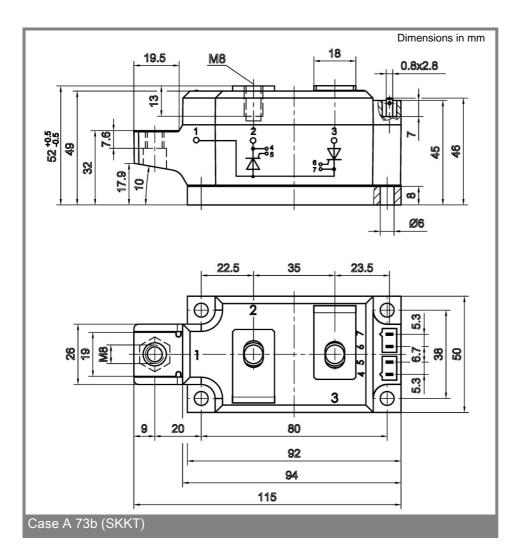




© by SEMIKRON

18-03-2011 STM





Case A 76b

\* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON

4

## SKKT 330, SKKH 330

products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our staff.