

SKKT 273; SKKH 273



Thyristor / Diode Modules

SKKT 273

SKKH 273

Features

- Industrial standard package
- Electrically insulated base plate
- Heat transfer through aluminum oxide ceramic insulated metal base plate
- Chip soldered on direct copper bonded Al_2O_3 ceramic
- Thyristor with center gate
- UL recognition applied for file no. E63532

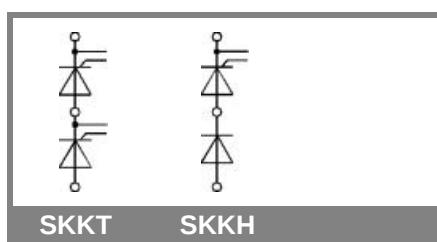
Typical Applications*

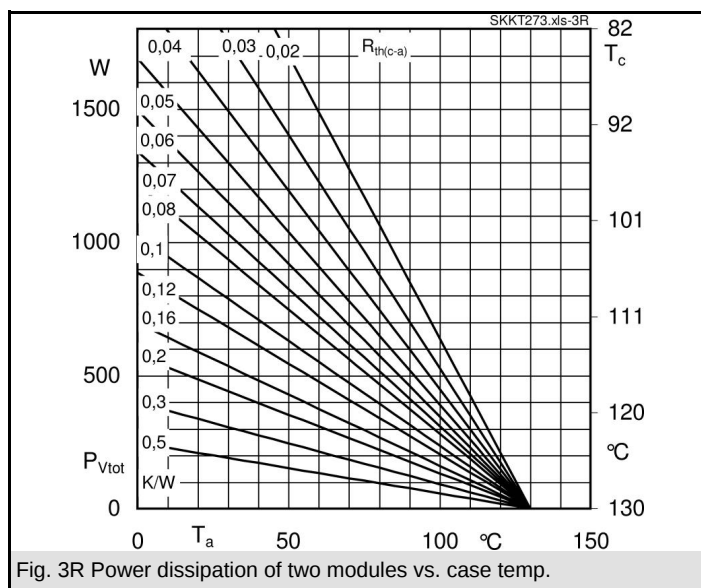
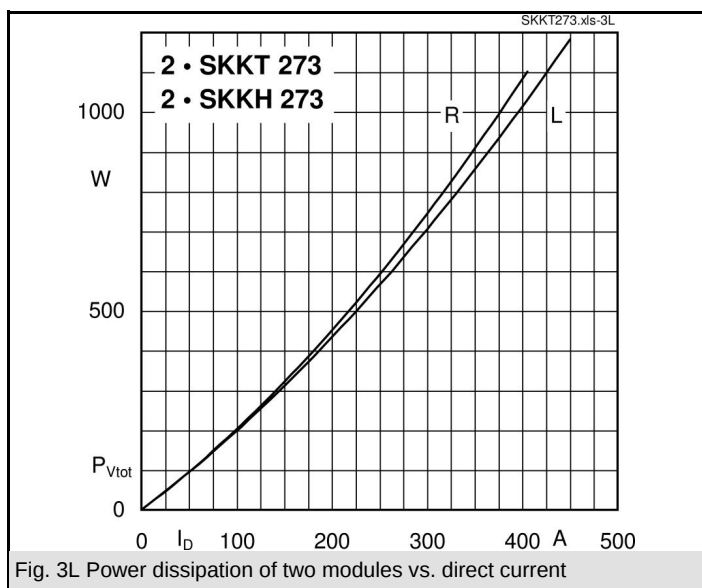
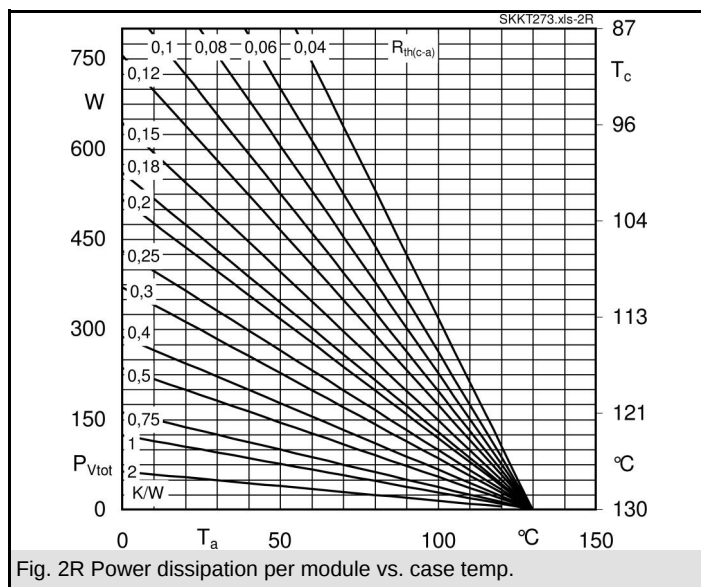
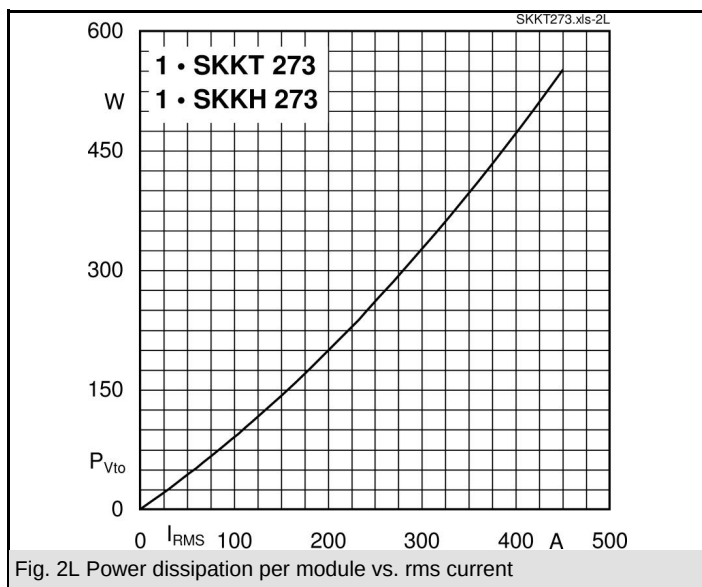
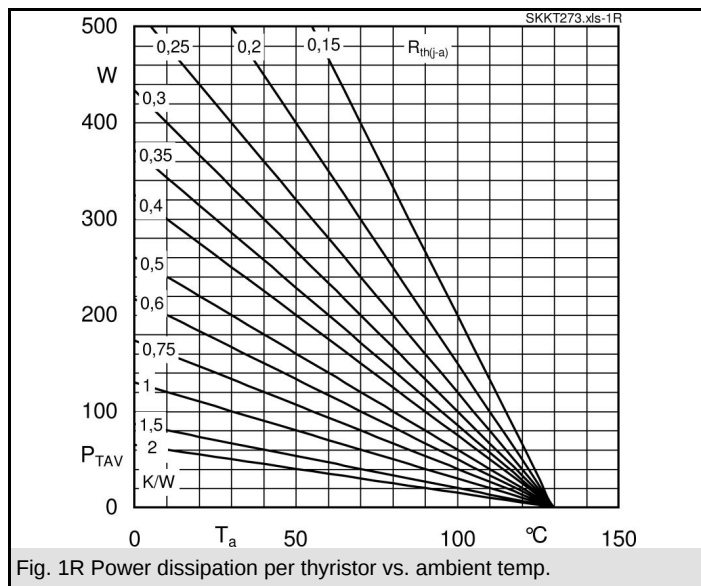
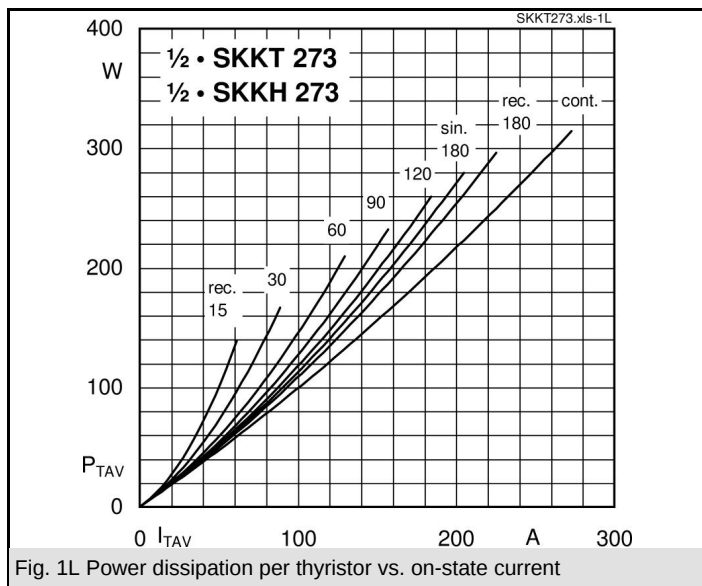
- DC motor control
(e. g. for machine tools)
- Temperature control
(e. g. for ovens, chemical processes)
- Professional light dimming
(studios, theaters)

1) See the assembly instructions

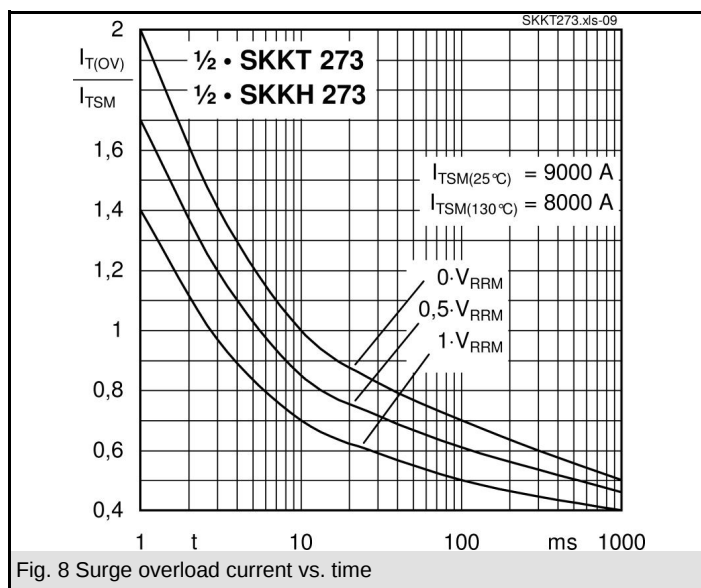
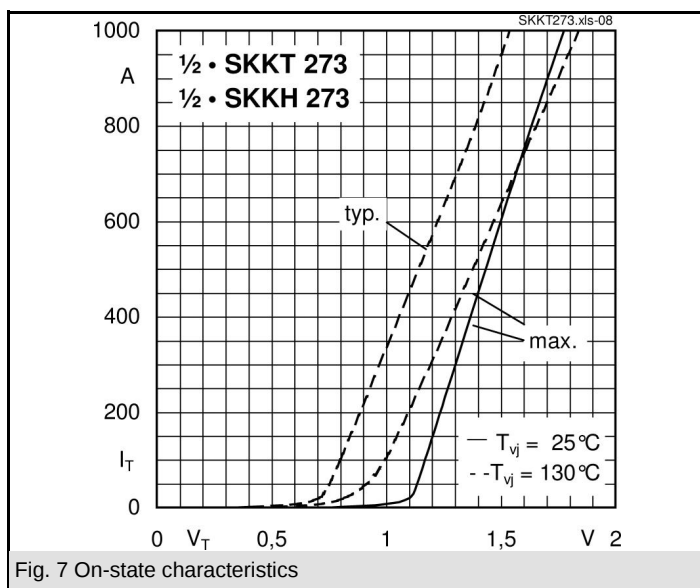
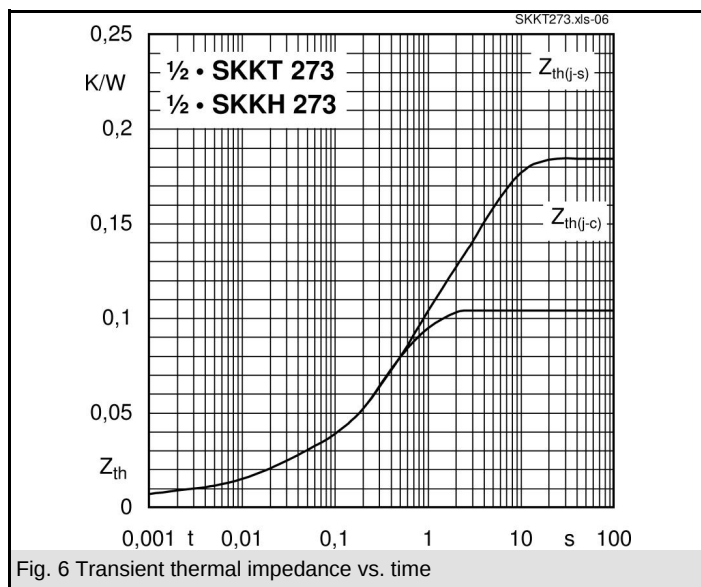
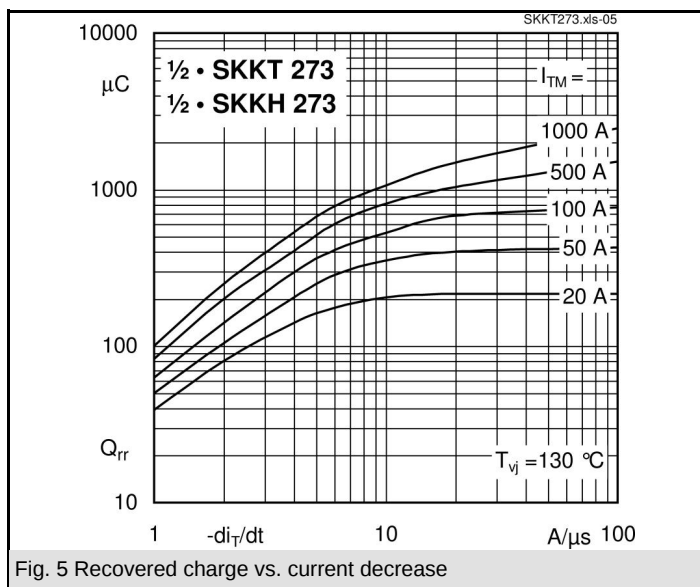
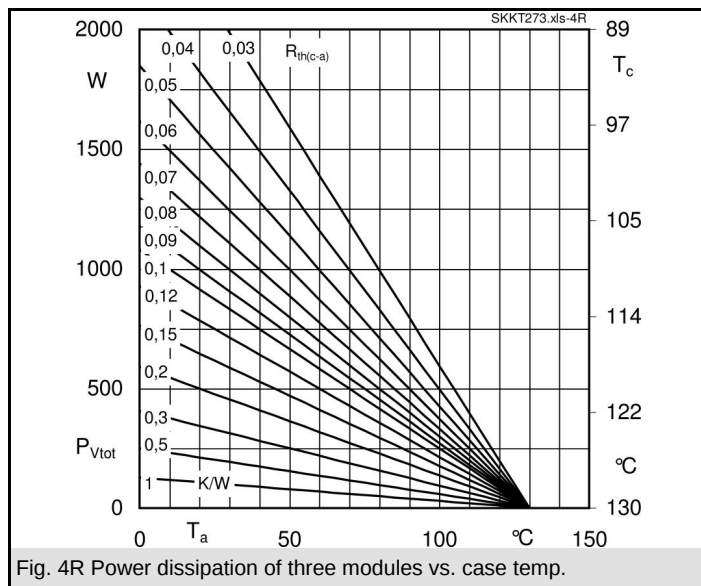
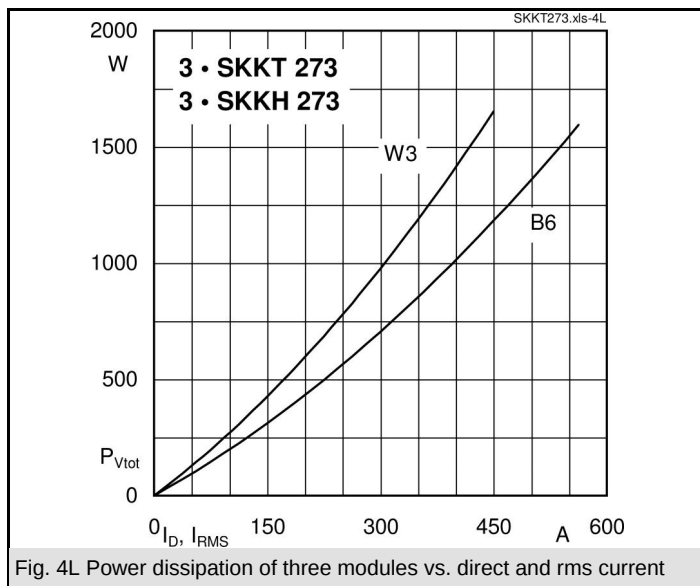
V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{TRMS} = 450$ A (maximum value for continuous operation) $I_{TAV} = 273$ A (sin. 180; $T_c = 85$ °C)		
1300	1200	SKKT 273/12E	SKKH 273/12E	
1700	1600	SKKT 273/16E	SKKH 273/16E	
1900	1800	SKKT 273/18E	SKKH 273/18E	

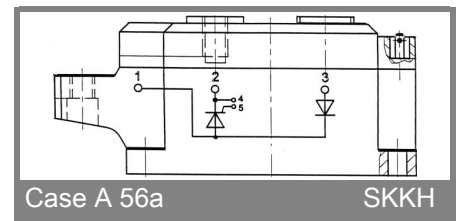
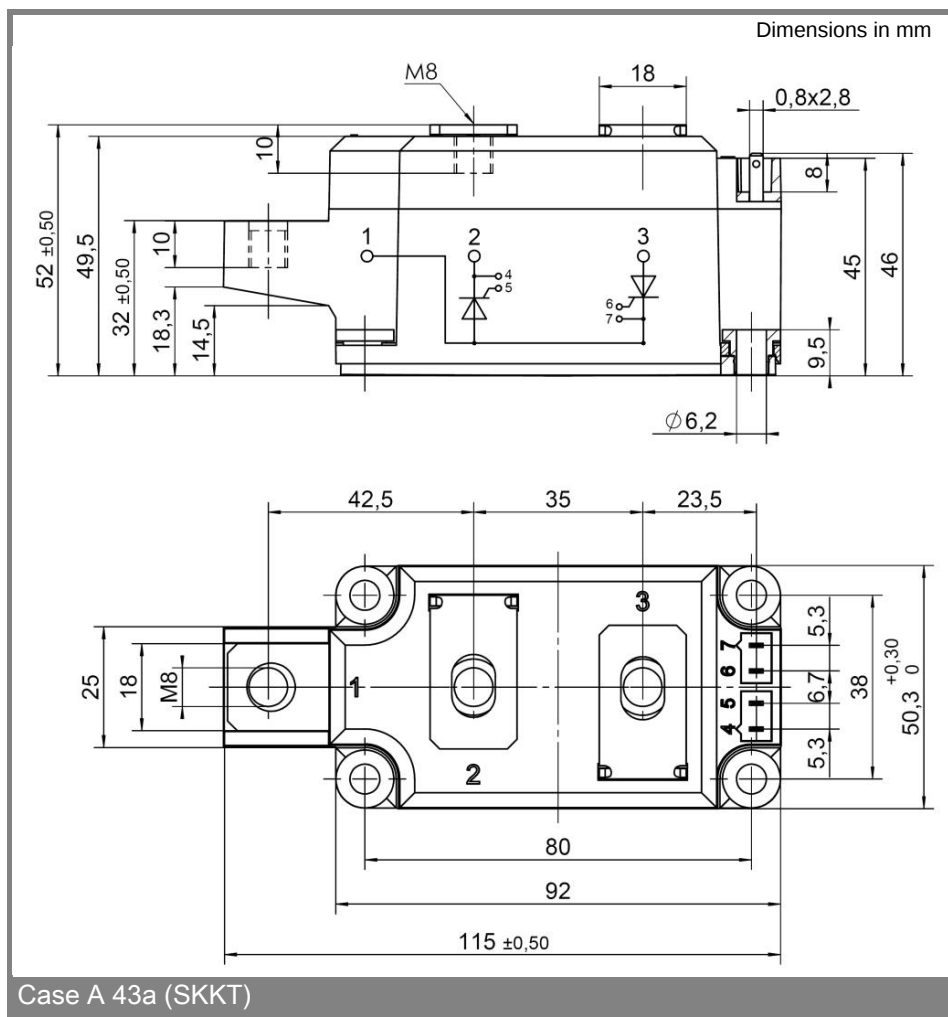
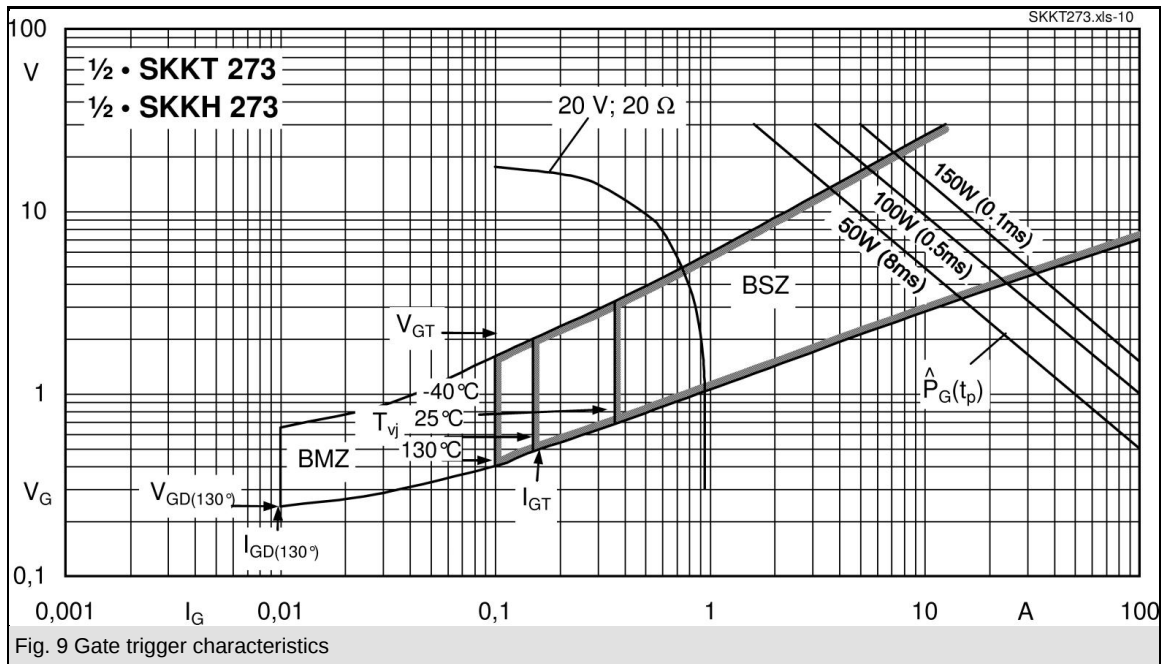
Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85$ (100) °C;	273 (202)	A
I_{TSM}	$T_{vj} = 25$ °C; 10 ms $T_{vj} = 130$ °C; 10 ms	9000 8000	A
i^2t	$T_{vj} = 25$ °C; 8,3 ... 10 ms $T_{vj} = 130$ °C; 8,3 ... 10 ms	405000 320000	A ² s
V_T	$T_{vj} = 25$ °C; $I_T = 750$ A	max. 1,6	V
$V_{T(TO)}$	$T_{vj} = 130$ °C	max. 0,9	V
r_T	$T_{vj} = 130$ °C	max. 0,92	mΩ
I_{DD}, I_{RD}	$T_{vj} = 130$ °C; $V_{RD} = V_{RRM}, V_{DD} = V_{DRM}$	max. 100	mA
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	max. 130	A/μs
$(dv/dt)_{cr}$	$T_{vj} = 130$ °C	max. 1000	V/μs
t_q	$T_{vj} = 130$ °C, typ.	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.	300 / 2000	mA
V_{GT}	$T_{vj} = 25$ °C; d.c.	min. 2	V
I_{GT}	$T_{vj} = 25$ °C; d.c.	min. 150	mA
V_{GD}	$T_{vj} = 130$ °C; d.c.	max. 0,25	V
I_{GD}	$T_{vj} = 130$ °C; d.c.	max. 10	mA
$R_{th(j-c)}$	cont.; per thyristor / per module	0,104 / 0,052	K/W
$R_{th(j-c)}$	sin. 180; per thyristor / per module	0,108 / 0,054	K/W
$R_{th(j-c)}$	rec. 120; per thyristor / per module	0,122 / 0,061	K/W
$R_{th(c-s)}$	per thyristor / per module	0,08 / 0,04	K/W
T_{vj}		- 40 ... + 130	°C
T_{stg}		- 40 ... + 125	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
M_s	to heatsink	5 ± 15 % ¹⁾	Nm
M_t	to terminals	9 ± 15 %	Nm
a		$5 \cdot 9,81$	m/s ²
m	approx.	410	g
Case	SKKT SKKH	A 43a A 56a	





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* 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 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 personal.