



SEMIPACK® 3

Thyristor / Diode Modules

SKKH 213

SKKT 213

Features

- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Chip soldered on direct copper bonded Al₂O₃ ceramic
- Thyristor with amplifying gate
- UL recognized, file no. E 63 532

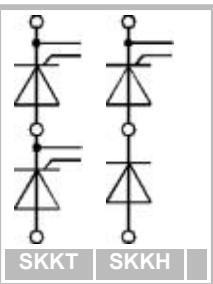
Typical Applications

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

¹⁾ See the assembly instructions

²⁾ The screws must be lubricated

³⁾ V_{isol} 1 s / 1 min = 4800 / 4000 V



V _{RSM}	V _{RRM} , V _{DRM}	I _{TRMS} = 370 A (maximum value for continuous operation)
V	V	I _{TAV} = 213 A (sin. 180; T _c = 90 °C)
900	800	SKKT 213/08E
1300	1200	SKKT 213/12E SKKH 213/12E
1500	1400	SKKT 213/14E SKKH 213/14E
1700	1600	SKKT 213/16E SKKH 213/16E
1900	1800	SKKT 213/18E SKKH 213/18E

Symbol	Conditions	Values	Units
I _{TAV}	sin. 180; T _c = 85 (100) °C	230 (173)	A
I _D	P16/200F; T _a = 35 °C; B2 / B6	354 / 456	A
I _{RMS}	P16/200F; T _a = 35 °C; W1 / W3	425 / 3 * 360	A
I _{TSM}	T _{vj} = 25 °C; 10 ms	8500	A
	T _{vj} = 130 °C; 10 ms	7500	A
i _{2t}	T _{vj} = 25 °C; 8,3 ... 10 ms	361000	A ² s
	T _{vj} = 130 °C; 8,3 ... 10 ms	281000	A ² s
V _T	T _{vj} = 25 °C; I _T = 750 A	max. 1,9	V
V _{T(TO)}	T _{vj} = 130 °C	max. 0,95	V
r _T	T _{vj} = 130 °C	max. 1,3	m•
I _{DD} ; I _{RD}	T _{vj} = 130 °C; V _{RD} = V _{RRM} ; V _{DD} = V _{DRM}	max. 50	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 * V _{DRM}	2	μs
(di/dt) _{cr}	T _{vj} = 130 °C	max. 250	A/μs
(dv/dt) _{cr}	T _{vj} = 130 °C	max. 1000	V/μs
t _q	T _{vj} = 130 °C	50 ... 150	μs
I _H	T _{vj} = 25 °C; typ. / max.	150 / 500	mA
I _L	T _{vj} = 25 °C; R _G = 33 •; typ. / max.	300 / 2000	mA
V _{GT}	T _{vj} = 25 °C; d.c.	min. 3	V
I _{GT}	T _{vj} = 25 °C; d.c.	min. 200	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	0,11 / 0,055	K/W
R _{th(j-c)}	sin. 180; per thyristor / per module	0,115 / 0,057	K/W
R _{th(j-c)}	rec. 120; per thyristor / per module	0,125 / 0,0625	K/W
R _{th(c-s)}	per thyristor / per module	0,08 / 0,04	K/W
T _{vj}		- 40 ... + 130	°C
T _{stg}		- 40 ... + 130	°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 % ²⁾	Nm
a		5 * 9,81	m/s ²
m	approx.	400	g
Case	SKKT	A 43	
	SKKH	A 56	

Diagrams