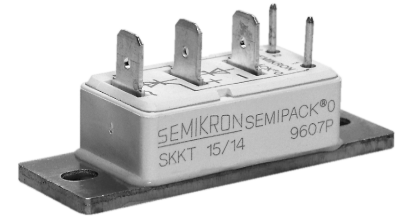


V _{RSM}	V _{RRM} V _{DRM}	(dv/dt) _{cr}	I _{T(RMS)} (maximum values for continuous operation)	
			24 A ¹⁾ ; 30 A ²⁾	24 A ¹⁾ ; 45 A ²⁾
V	V	V/μs	I _{TAV} (sin. 180; T _{case} = 65 °C)	
			17,5 A ²⁾	17,5 A ²⁾
500	400	500	SKKT 15/04 D	SKKH 15/04 D
700	600	500	SKKT 15/06 D	SKKH 15/06 D
900	800	500	SKKT 15/08 D	SKKH 15/08 D
1300	1200	1000	SKKT 15/12 E	SKKH 15/12 E
1500	1400	1000	SKKT 15/14 E	SKKH 15/14 E
1700	1600	1000	SKKT 15/16 E	SKKH 15/16 E

SEMI[®]PACK[®] 0 Thyristor / Diode Modules

SKKT 15 SKKH 15



SKKT

SKKH

Symbol	Conditions	SKKT 15 SKKH 15	Units
I _{TAV}	sin. 180; T _{case} = 65 °C T _{case} = 75 °C	17,5 ²⁾ 15 ¹⁾	A A
I _D	B2/B6 T _{amb} = 45 °C; P 13A/100	14 / 17	A
I _{RMS}	W1/W3 T _{amb} = 45 °C; P 13A/100	21 / 3 x 12	A
I _{TSM}	T _{vj} = 25 °C; 10 ms T _{vj} = 125 °C; 10 ms	320 280	A A
i ² t	T _{vj} = 25 °C; 8,3 ... 10 ms T _{vj} = 125 °C; 8,3 ... 10 ms	510 390	A ² s A ² s
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}	1	μs
(di/dt) _{cr}	T _{vj} = 125 °C	100	A/μs
t _q	T _{vj} = 125 °C	typ. 80	μs
I _H	T _{vj} = 25 °C; typ./max.	80 / 150	mA
I _L	T _{vj} = 25 °C; R _G = 33 Ω; typ./max.	150 / 300	mA
V _T	T _{vj} = 25 °C; I _T = 75 A	max. 2,45	V
V _{T(TO)}	T _{vj} = 125 °C	1,1	V
r _T	T _{vj} = 125 °C	20	mΩ
I _{DD} ; I _{RD}	T _{vj} = 125 °C; V _{RD} = V _{RRM} V _{DD} = V _{DRM}	max. 8	mA
V _{GT}	T _{vj} = 25 °C; d.c.	3	V
I _{GT}	T _{vj} = 25 °C; d.c.	100	mA
V _{GD}	T _{vj} = 125 °C; d.c.	0,25	V
I _{GD}	T _{vj} = 125 °C; d.c.	5	mA
R _{thjh}	cont. } per thyristor / sin. 180 } per module rec. 120 }	1,6 / 0,8 1,7 / 0,9 1,8 / 0,9	°C/W °C/W °C/W
R _{thch}		0,2 / 0,1	°C/W
T _{vj}		- 40 ... + 125	°C
T _{stg}		- 40 ... + 125	°C
V _{isol}	a. c. 50 Hz; r.m.s.; 1 s/1 min	3600 / 3000	V~
M ₁	Case to heatsink; SI (US) units	1,5 (13 lb. in.) ± 15 % ³⁾	Nm
a		5 · 9,81	m/s ²
w	approx.	50	g
Case	→ page B 1 – 30	SKKT 15: A 1 SKKH 15: A 2	

Features

- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- 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⁾ Using tin plated connectors with flexible leads of 6 mm² for the main terminals

²⁾ Flexible leads of 6 mm² soldered to the main terminals

³⁾ See the assembly instructions

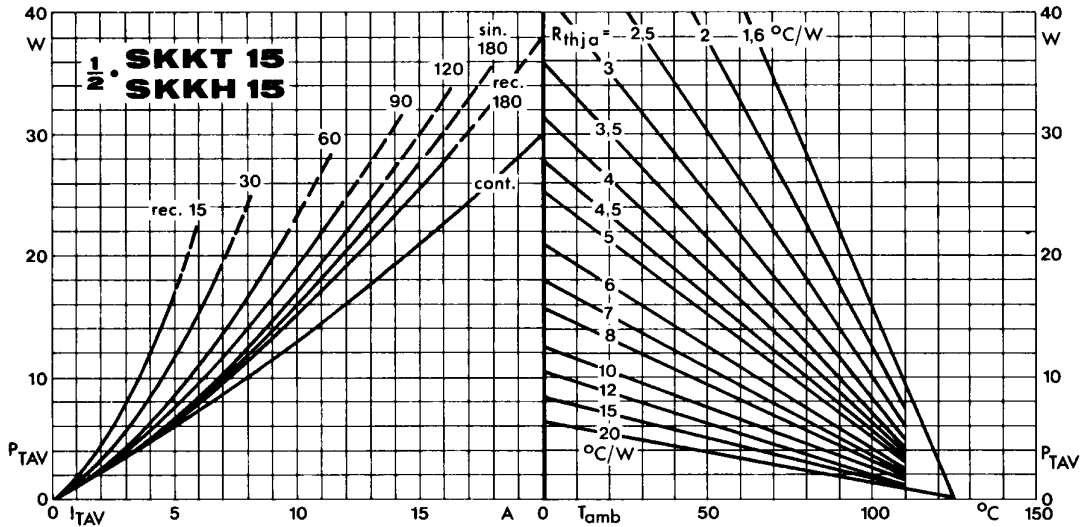


Fig. 1 Power dissipation per thyristor vs. on-state current and ambient temperature

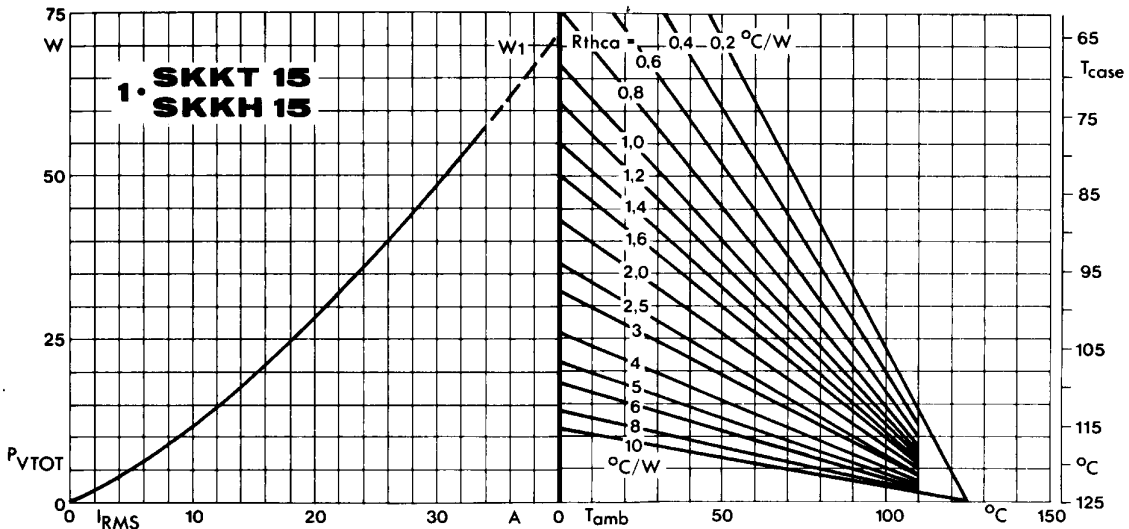


Fig. 2 Power dissipation per module vs. rms current and case temperature

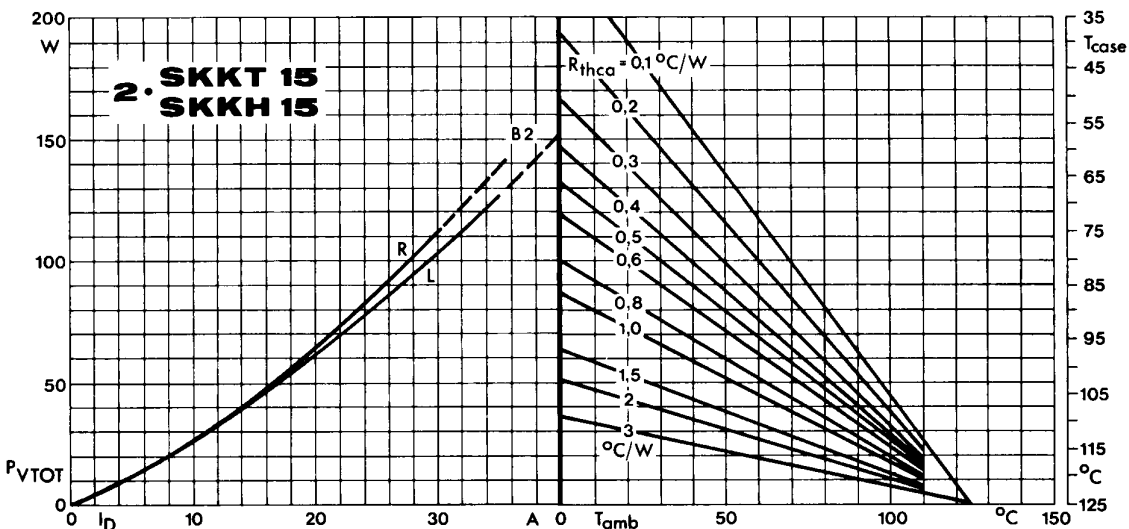


Fig. 3 Power dissipation of two modules vs. direct current and case temperature

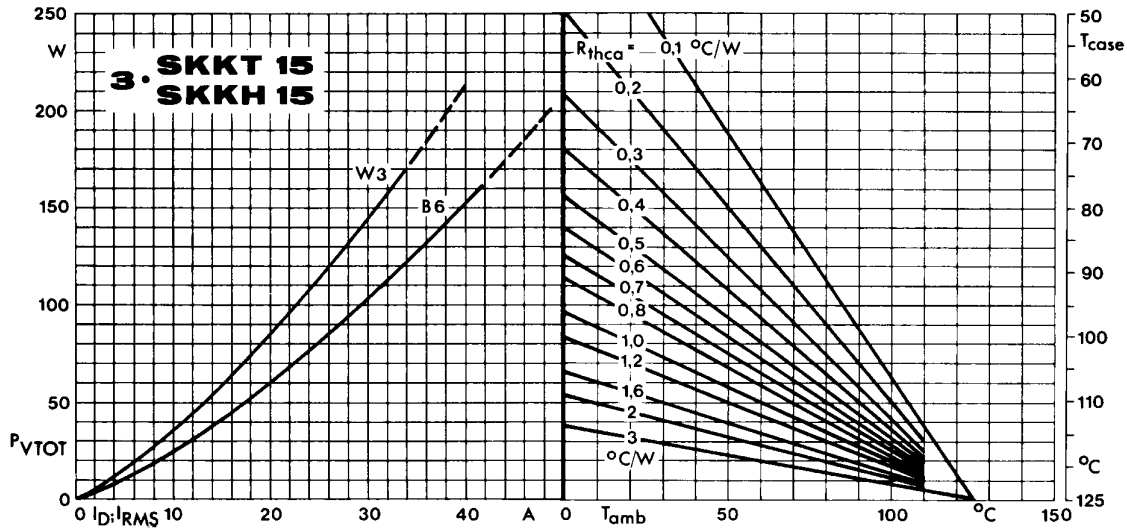


Fig. 4 Power dissipation of three modules vs. direct and rms current and case temperature

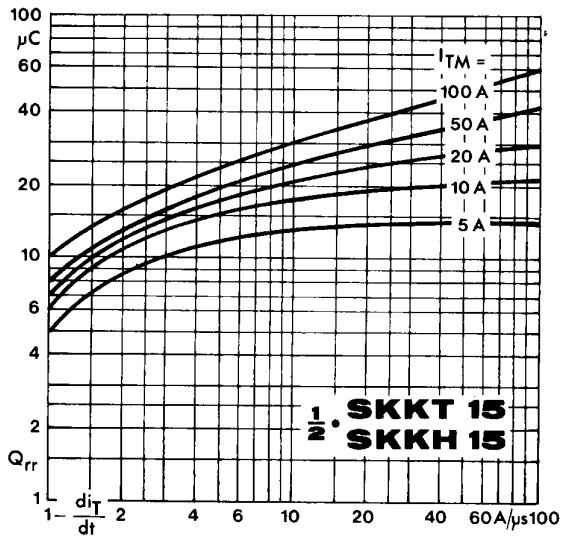


Fig. 5 Recovered charge vs. current decrease

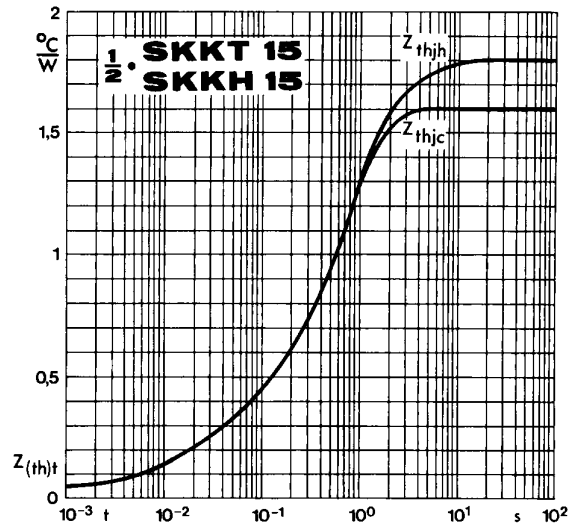


Fig. 6 Transient thermal impedance vs. time

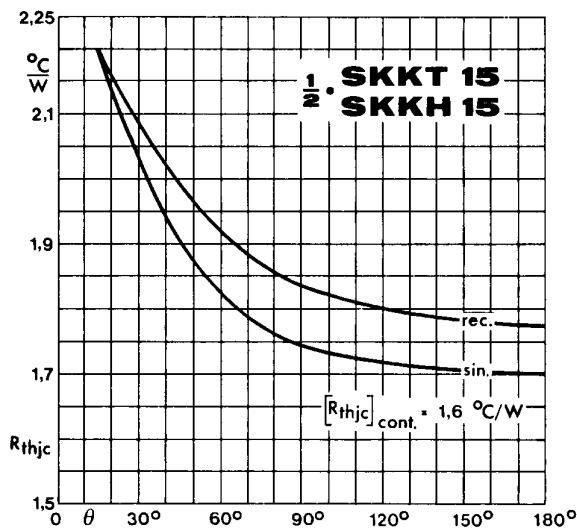


Fig. 7 Thermal resistance vs. conduction angle

