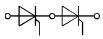
V_{RSM}	V_{RRM} V_{DRM}	$(dv/dt)_{cr}$	I_{TRMS} (maximum values for continuous operation) 24 A[1]; 28 A[2]	24 A[1]; 28 A[2]
			I_{TAV} (sin. 180; T_{case} = 65 °C)	
V	V	V/µs	17,5 A[2]	17,5 A[2]
500	400	500	**SKKT 15/04**	**SKKH 15/04**
700	600	500	**SKKT 15/06**	**SKKH 15/06**
900	800	500	**SKKT 15/08**	**SKKH 15/08**
1300	1200	500	**SKKT 15/12**	**SKKH 15/12**
1500	1400	500	**SKKT 15/14**	**SKKH 15/14**
1700	1600	500	**SKKT 15/16**	**SKKH 15/16**

Symbol	**Conditions**	**SKKT 15 SKKH 15**
I_{TAV}	sin. 180; T_{case} = 65 °C T_{case} = 75 °C	17,5 A[2] 15 A[1]
I_D	B2/B6 | T_{amb} = 45 °C; P 13A/100	14 A/17 A
I_{RMS}	W1/W3 | T_{amb} = 45 °C; P 13A/100	21 A/3 x 12 A
I_{TSM}	T_{vj} = 25 °C; 10 ms T_{vj} = 125 °C; 10 ms	320 A 280 A
i^2t	T_{vj} = 25 °C; 8,3 ... 10 ms T_{vj} = 125 °C; 8,3 ... 10 ms	510 A^2s 390 A^2s
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 mA/150 mA
I_L	T_{vj} = 25 °C; R_G = 33 Ω; typ./max.	150 mA/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_{DD} = V_{DRM}; V_{RD} = V_{RRM}	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_{thjc}	cont. sin. 180 rec.120 } per thyristor/per module	1,6/0,8 °C/W 1,7/0,9 °C/W 1,8/0,9 °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 V~/3000 V~
M_1	Case to heatsink; SI units/US units	1,5 Nm/13 lb. in. ± 15 %[3]
a		5 · 9,81 m/s^2
w	approx.	50 g
Case	→ page B 1 – 30	SKKT 15: A1 SKKH 15: A2

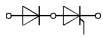
1) Using tin plated connectors with flexible leads of 6 mm^2 for the main terminals
2) Flexible leads of 6 mm^2 soldered to the main terminals
3) See the assembly instructions

SEMIPACK® 0
Thyristor/ Diode Modules

SKKT 15
SKKH 15



SKKT



SKKH

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)

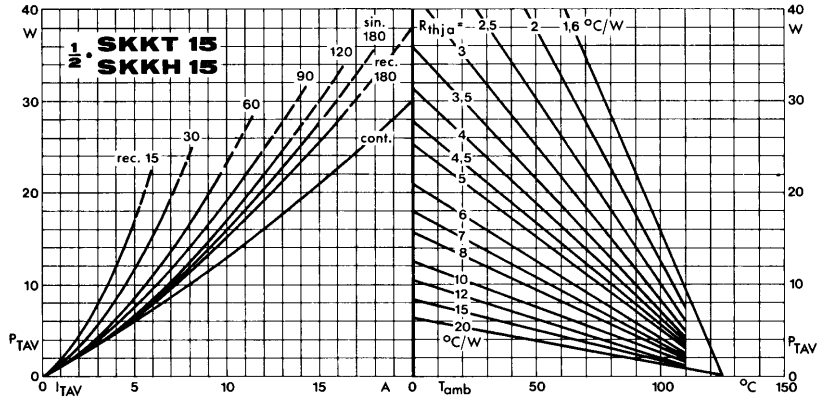


Fig. 1 Power dissipation per thyristor vs. on-state current and ambient temperature

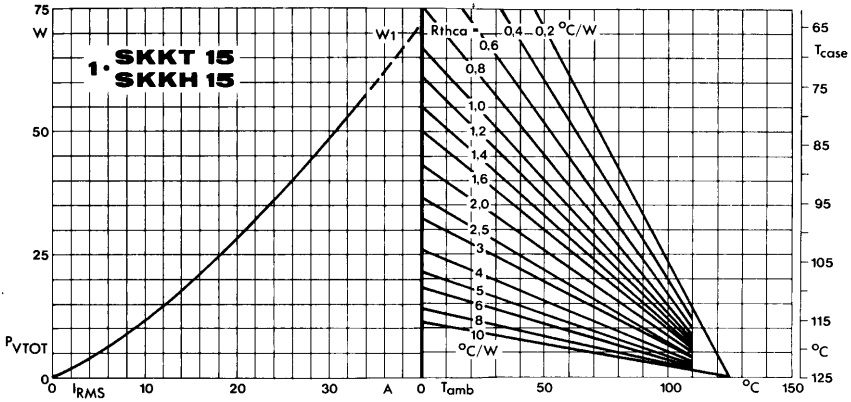


Fig. 2 Power dissipation per module vs. rms current and case temperature

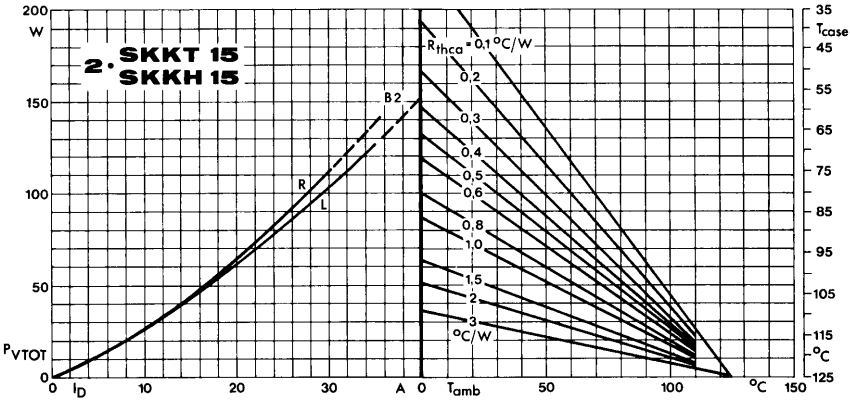


Fig. 3 Power dissipation of two modules vs. direct current and case temperature

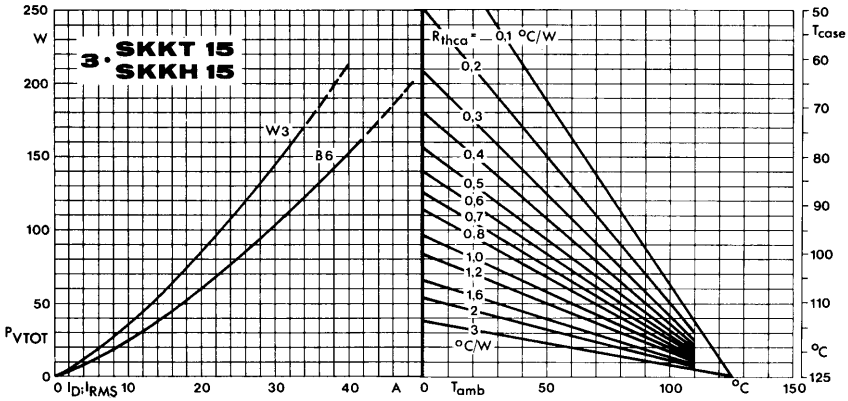


Fig. 4 Power dissipation of three modules vs. direct and rms current and case temperature

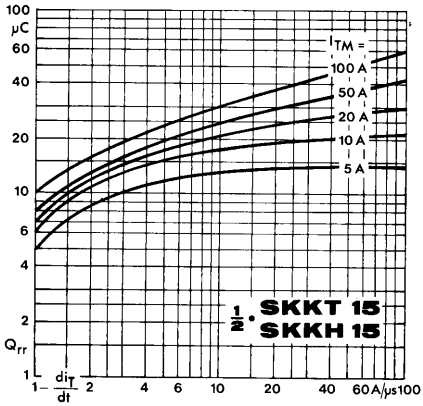


Fig. 5 Recovered charge vs. current decrease

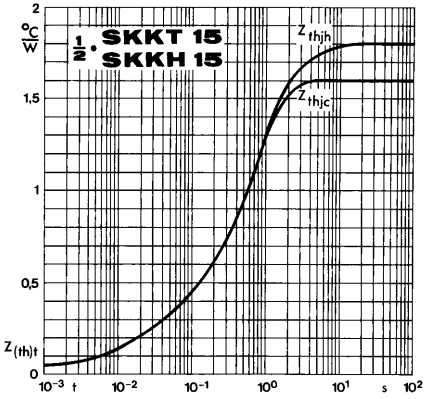


Fig. 6 Transient thermal impedance vs. time

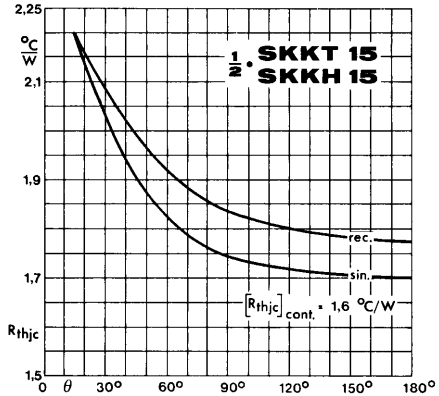


Fig. 7 Thermal resistance vs. conduction angle

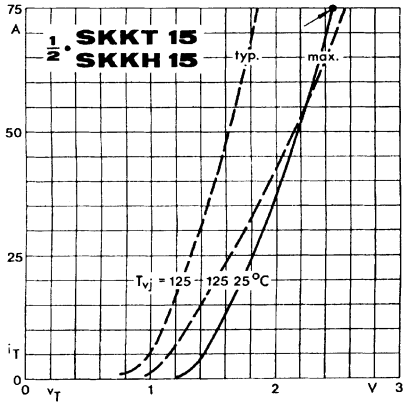


Fig. 8 On-state characteristics

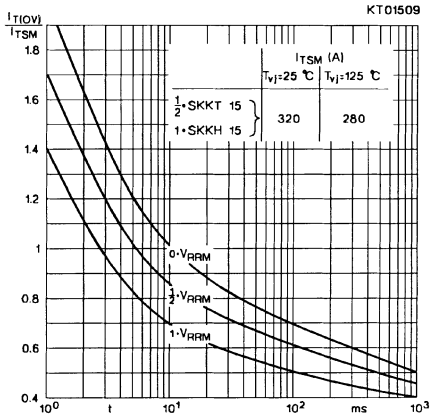


Fig. 9 Surge overload current vs. time

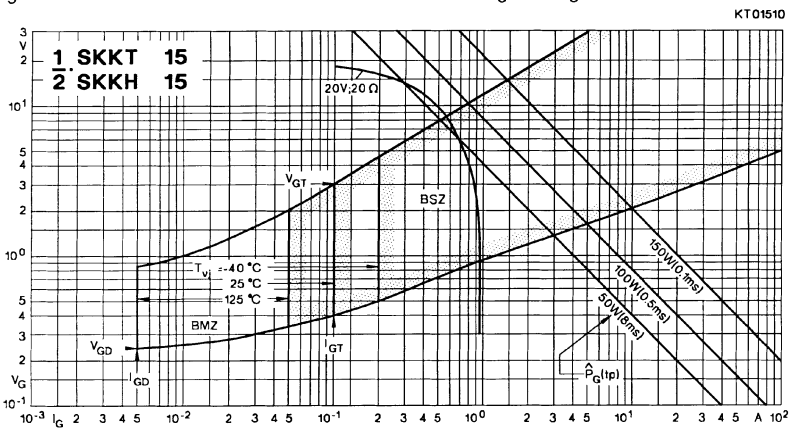
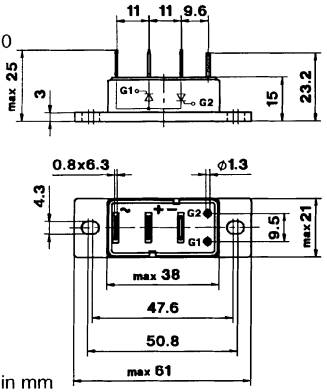


Fig. 10 Gate trigger characteristics

SKKT 15

Case A 1

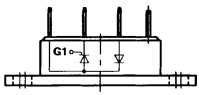
SEMIPACK 0



Dimensions in mm

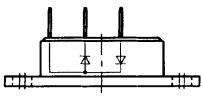
SKKH 15

Case A 2



SKKD 15

Case A 3



SKKE 15

Case A 4