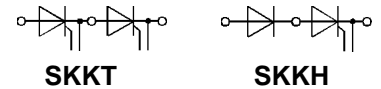


V_{RSM}	V_{RRM}	$(dv/dt)_{cr}$	I_{TRMS} (maximum values for continuous operation)	
	V_{DRM}			
V	V	V/ μ s	195 A	
			I_{TAV} (sin. 180; $T_{case} = 85\text{ }^{\circ}\text{C}$)	
			128 A	
900	800	500	SKKT 122/08 D	SKKH 122/08 D
1300	1200	1000	SKKT 122/12 E	SKKH 122/12 E
1500	1400	1000	SKKT 122/14 E	SKKH 122/14 E
1700	1600	1000	SKKT 122/16 E	SKKH 122/16 E
1900	1800	1000	SKKT 122/18 E	SKKH 122/18 E

SEMIPACK® 2 Thyristor / Diode Modules

SKKT 122 SKKH 122



Symbol	Conditions	SKKT 122 SKKH 122	Units
I_{TAV}	sin. 180; $T_{case} = 88\text{ }^{\circ}\text{C}$ $T_{case} = 80\text{ }^{\circ}\text{C}$	122 140	A A
I_D	B2/B6 $T_{amb} = 45\text{ }^{\circ}\text{C}$; P 3/180 $T_{amb} = 35\text{ }^{\circ}\text{C}$; P 3/180F $T_{amb} = 35\text{ }^{\circ}\text{C}$; P 16/200F	82 / 105	A
		170 / 200	A
		235 / 315	A
I_{RMS}	W1/W3 $T_{amb} = 35\text{ }^{\circ}\text{C}$; P 3/180F $T_{amb} = 35\text{ }^{\circ}\text{C}$; P 16/200F	235 / 3 x 160	A
		295 / 3 x 245	A
I_{TSM}	$T_{vj} = 25\text{ }^{\circ}\text{C}$; 10 ms $T_{vj} = 125\text{ }^{\circ}\text{C}$; 10 ms	3 600 3 200	A A
i^2t	$T_{vj} = 25\text{ }^{\circ}\text{C}$; 8,3 ... 10 ms $T_{vj} = 125\text{ }^{\circ}\text{C}$; 8,3 ... 10 ms	64 800 51 200	A^2s A^2s
t_{gd}	$T_{vj} = 25\text{ }^{\circ}\text{C}$ $I_G = 1\text{ A}$ $di_G/dt = 1\text{ A}/\mu\text{s}$	1	μs
t_{gr}	$V_D = 0,67 \cdot V_{DRM}$	2	μs
$(di/dt)_{cr}$	$T_{vj} = 125\text{ }^{\circ}\text{C}$	200	$\text{A}/\mu\text{s}$
t_q	$T_{vj} = 125\text{ }^{\circ}\text{C}$	typ. 120	μs
I_H	$T_{vj} = 25\text{ }^{\circ}\text{C}$; typ./max.	100 / 300	mA
I_L	$T_{vj} = 25\text{ }^{\circ}\text{C}$; $R_G = 33\ \Omega$; typ./max.	0,2 / 0,5	A
V_T	$T_{vj} = 25\text{ }^{\circ}\text{C}$; $I_T = 360\text{ A}$	1,55	V
$V_{T(TO)}$	$T_{vj} = 125\text{ }^{\circ}\text{C}$	0,85	V
r_T	$T_{vj} = 125\text{ }^{\circ}\text{C}$	2,0	$\text{m}\Omega$
I_{DD} ; I_{RD}	$T_{vj} = 125\text{ }^{\circ}\text{C}$; V_{DRM} ; V_{RRM}	40	mA
V_{GT}	$T_{vj} = 25\text{ }^{\circ}\text{C}$; d.c.	2	V
I_{GT}	$T_{vj} = 25\text{ }^{\circ}\text{C}$; d.c.	150	mA
V_{GD}	$T_{vj} = 125\text{ }^{\circ}\text{C}$; d.c.	0,25	V
I_{GD}	$T_{vj} = 125\text{ }^{\circ}\text{C}$; d.c.	10	mA
R_{thjh}	cont.	0,2 / 0,1	$^{\circ}\text{C}/\text{W}$
R_{thch}	sin. 180 } per thyristor / rec. 120 } per module	0,21 / 0,105	$^{\circ}\text{C}/\text{W}$
		0,22 / 0,11	$^{\circ}\text{C}/\text{W}$
T_{vj}		0,13 / 0,065	$^{\circ}\text{C}/\text{W}$
T_{stg}		- 40 ... + 125	$^{\circ}\text{C}$
		- 40 ... + 125	$^{\circ}\text{C}$
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s/1 min	3600 / 3000	V~
M_1	to heatsink	5 (44 lb. in.) $\pm 15\%$ ¹⁾	Nm
M_2	to terminals	5 (44 lb. in.) $\pm 15\%$	Nm
a		5 · 9,81	m/s^2
w	approx.	250	g
Case	→ page B 1 – 96	SKKT 122: A 21 SKKH 122: A 22	

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)
- Softstarter
- Temperature control (e. g. for ovens, chemical processes)
- Professional light dimming (studios, theaters)

¹⁾ See the assembly instructions

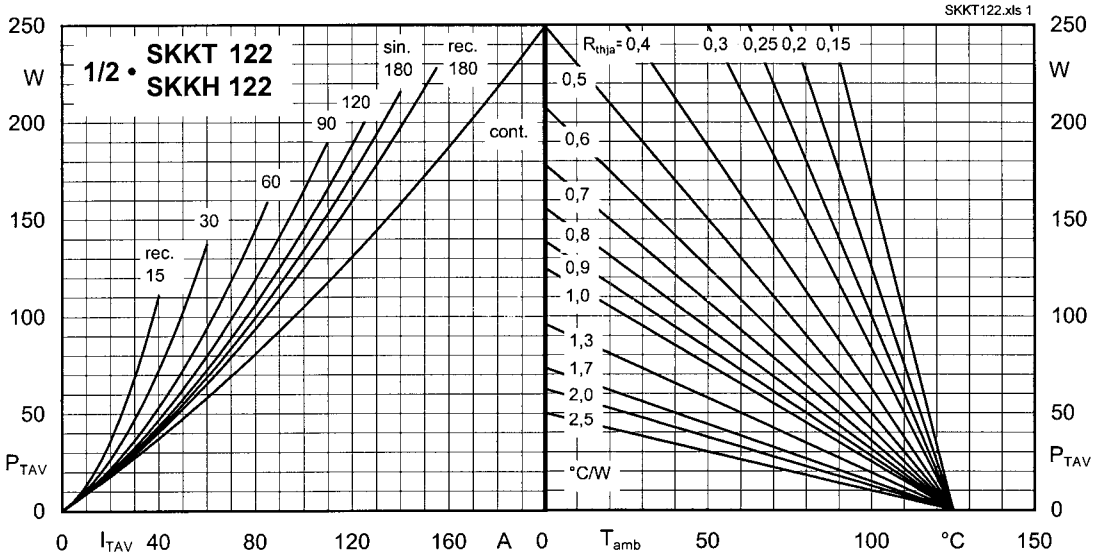


Fig. 1 Power dissipation per thyristor vs. on-state current and ambient temperature

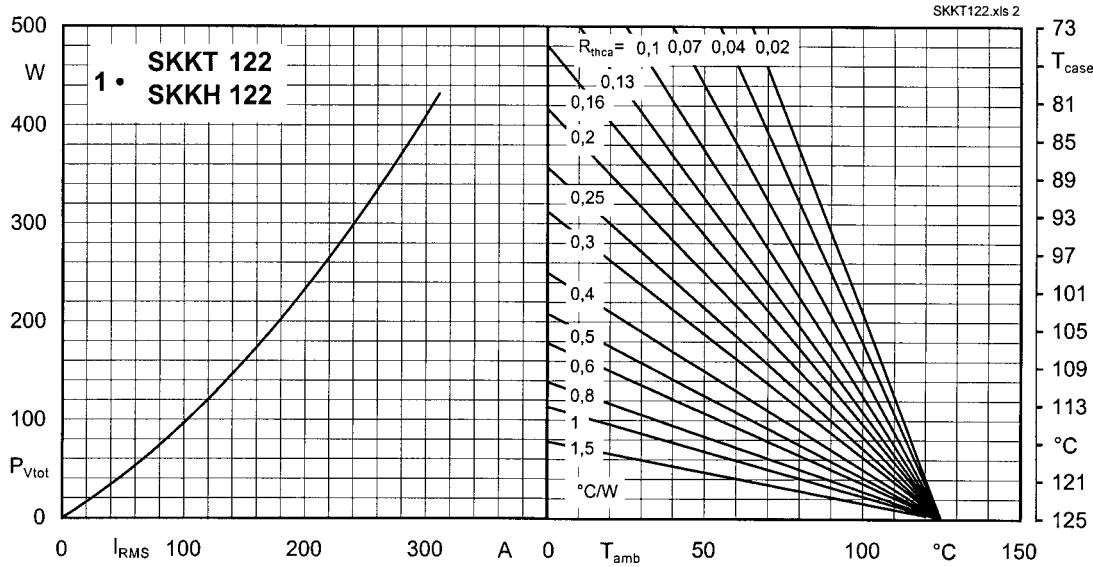


Fig. 2 Power dissipation per module vs. rms current and case temperature

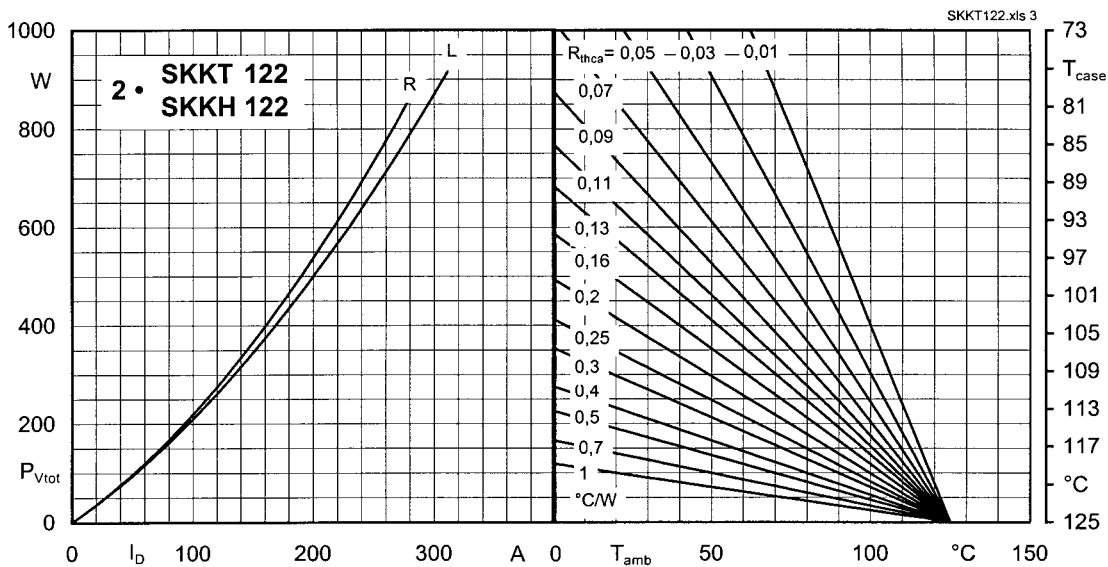


Fig. 3 Power dissipation of two module vs. direct current and case temperature

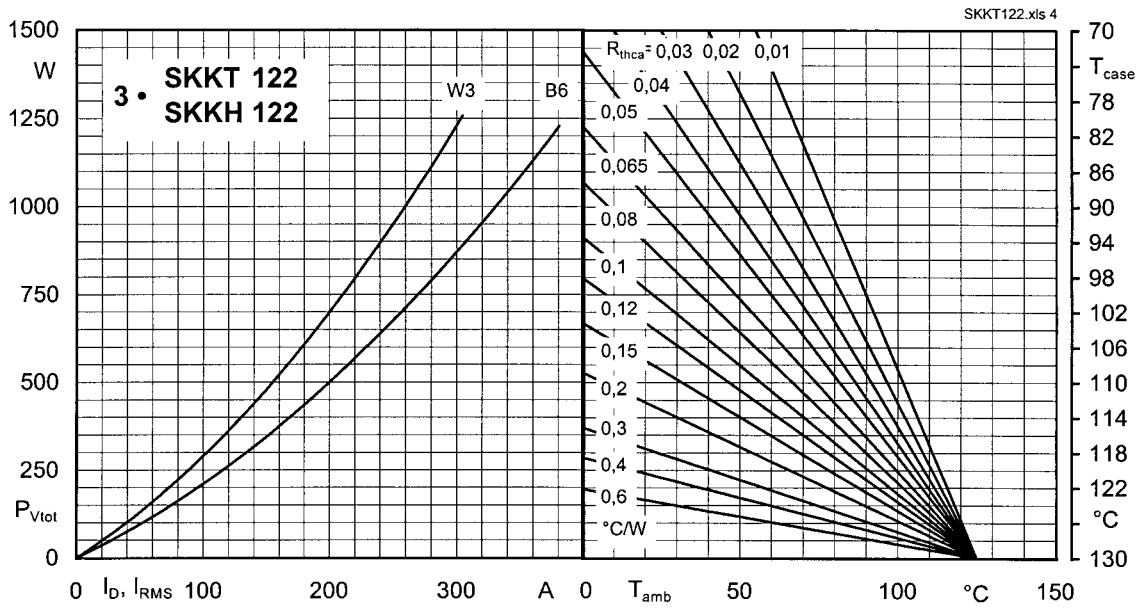
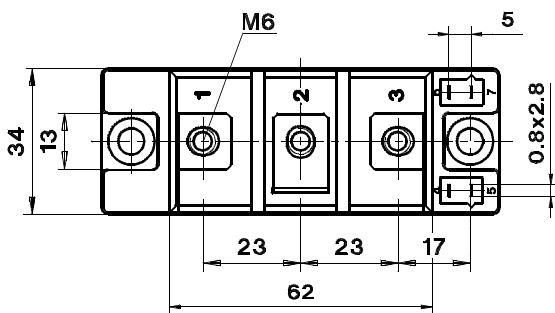
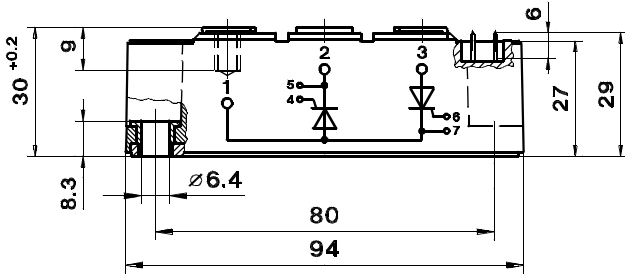


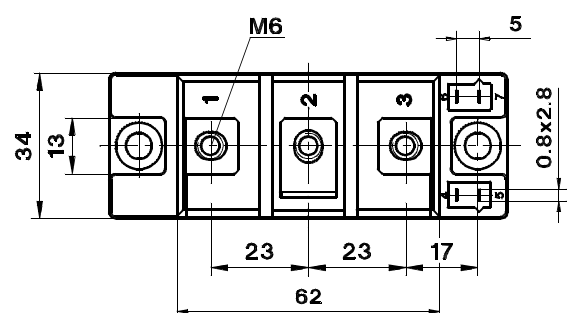
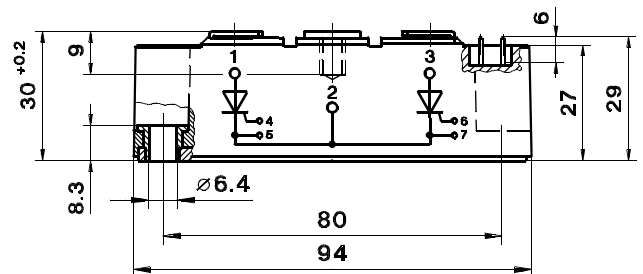
Fig. 4 Power dissipation of three modules vs. direct and rms current and case temperature

SKKT 122, 132, 162

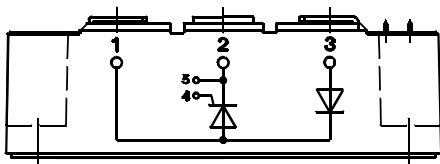
Case A 21

SEMIPACK[®] 2 UL recognized, file no. E 63 532**SKMT 132**

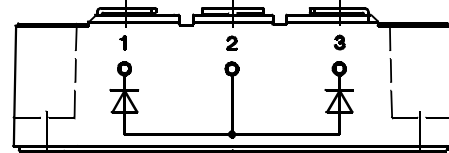
Case A 50

SEMIPACK[®] 2 UL recognized, file no. E 63 532**SKKH 122, 132, 162**

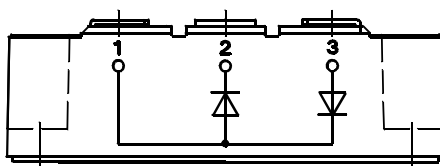
Case A 22

**SKND 165**

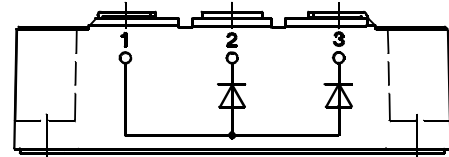
Case A 52

**SKKD 162**

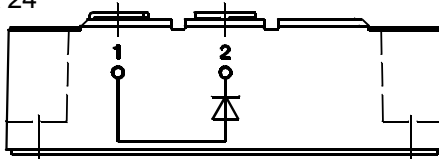
Case A 23

**SKND 162**

Case A 57

**SKKE 162**

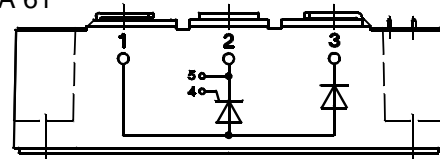
Case A 24



Dimensions in mm

SKNH 132

Case A 61



Dimensions in mm