

V _{RSM}	V _{RRM} V _{DRM}	(dv/dt) _{cr}	I _{TRMS} (maximum value for continuous operation)			
			75 A			
			I _{TAV} (sin. 180; T _{case} = 68 °C)			
V	V	V/μs	48 A			
500	400	500	–	–	SKKH 41/04 D	–
700	600	500	SKKT 41/06 D	SKKT 42/06 D	SKKH 41/06 D	SKKH 42/06 D
900	800	500	SKKT 41/08 D	SKKT 42/08 D ¹⁾	SKKH 41/08 D	SKKH 42/08 D
1300	1200	1000	SKKT 41/12 E	SKKT 42/12 E ¹⁾	SKKH 41/12 E	SKKH 42/12 E
1500	1400	1000	SKKT 41/14 E	SKKT 42/14 E ¹⁾	SKKH 41/14 E	SKKH 42/14 E
1700	1600	1000	SKKT 41/16 E	SKKT 42/16 E ¹⁾	SKKH 41/16 E	SKKH 42/16 E
1900	1800	1000	SKKT 41/18 E	SKKT 42/18 E ¹⁾	SKKH 41/18 E	SKKH 42/18 E
2100	2000	1000	SKKT 41/20 E	SKKT 42/20 E ¹⁾	–	–
2300	2200	1000	SKKT 41/22 E	SKKT 42/22 E ¹⁾	–	–

Symbol	Conditions		SKKT 41 SKKH 41	SKKT 42 SKKT 42B SKKH 42	Units
I _{TAV}	sin. 180; T _{case} = 74 °C T _{case} = 85 °C		48 40		A A
I _D	B2/B6	T _{amb} = 45 °C; P 3/180 T _{amb} = 35 °C; P 3/180 F	50 / 60 85 / 110		A A
I _{RMS}	W1/W3	T _{amb} = 35 °C; P 3/180 F	110 / 3 x 85		A
I _{TSM}	T _{vj} = 25 °C; 10 ms T _{vj} = 125 °C; 10 ms		1 000 850		A A
i ² t	T _{vj} = 25 °C; 8,3 ... 10 ms T _{vj} = 125 °C; 8,3 ... 10 ms		5 000 3 600		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}		2		μs
(di/dt) _{cr}	T _{vj} = 125 °C		150		A/μs
t _q	T _{vj} = 125 °C		typ. 80		μs
I _H	T _{vj} = 25 °C; typ./max.		150 / 250		mA
I _L	T _{vj} = 25 °C; R _G = 33 Ω; typ./max.		300 / 600		mA
V _T	T _{vj} = 25 °C; I _T = 200 A		max. 1,95		V
V _{T(TO)}	T _{vj} = 125 °C		1		V
r _T	T _{vj} = 125 °C		4,5		mΩ
I _{DD} ; I _{RD}	T _{vj} = 125 °C; V _{RD} = V _{RRM} V _{DD} = V _{DRM}		max. 15 ³⁾		mA
V _{GT}	T _{vj} = 25 °C; d.c.		3		V
I _{GT}	T _{vj} = 25 °C; d.c.		150		mA
V _{GD}	T _{vj} = 125 °C; d.c.		0,25		V
I _{GD}	T _{vj} = 125 °C; d.c.		6		mA
R _{thjc}	cont. sin. 180 rec. 120	} per thyristor / per module	0,65 / 0,33		°C/W
			0,69 / 0,35		°C/W
			0,73 / 0,37		°C/W
			0,2 / 0,1		°C/W
			– 40 ... + 125		°C
R _{thch}			– 40 ... + 125		°C
T _{vj}					
T _{stg}					
V _{isol}	a. c. 50 Hz; r.m.s.; 1 s/1 min		3600 / 3000		V~
M ₁	to heatsink to terminals		5 (44 lb. in.) ± 15 % ⁴⁾		Nm
M ₂			3 (26 lb. in.) ± 15 %		Nm
a			5 · 9,81		m/s ²
w	approx.		95		g
Case	→ page B 1 – 95		SKKT 41: A 5 SKKH 41: A 6 SKKH 42: A 47	SKKL 42: A 59 SKKT 42: A 46 SKKT 42B: A 48	

SEMIPACK® 1

Thyristor / Diode Modules

SKKT 41

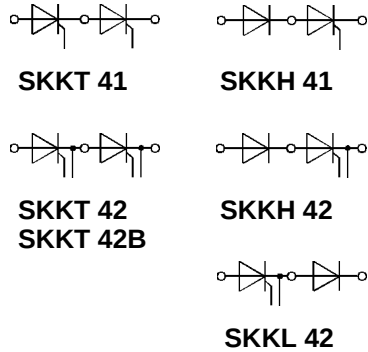
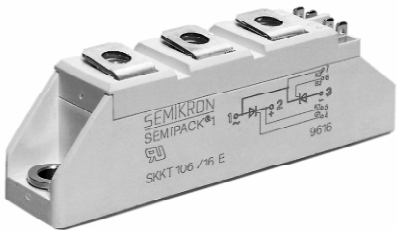
SKKH 41

SKKT 42

SKKH 42

SKKT 42B

SKKL 42²⁾



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

1) Also available in SKKT 42 B configuration (case A 48)

2) SKKL 42 available on request

3) /20 E, /22 E max. 30 mA

4) See the assembly instructions

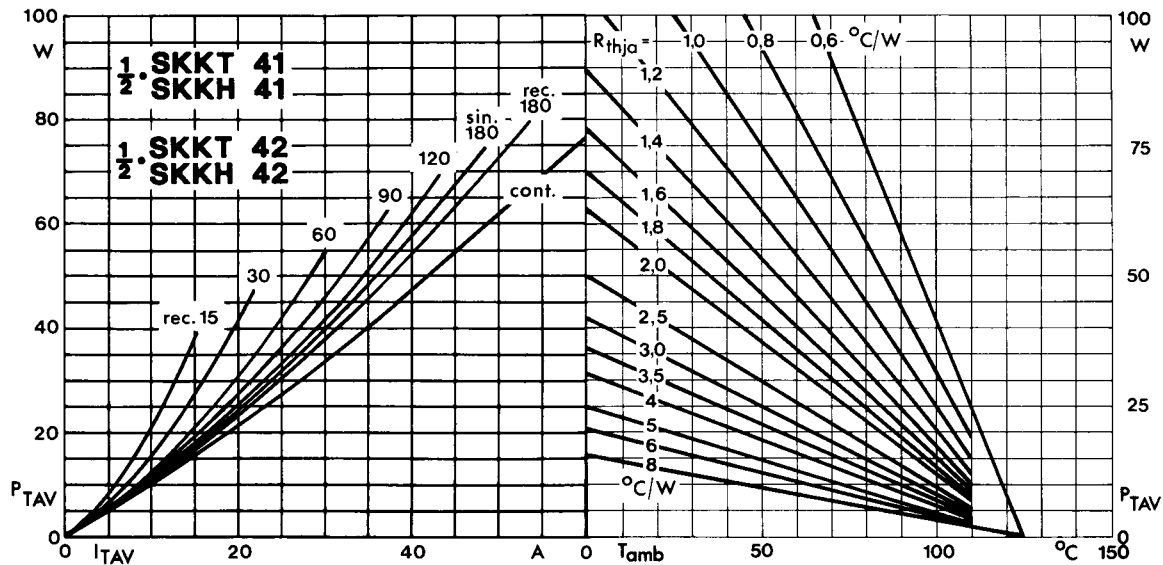


Fig. 1 Power dissipation per thyristor vs. on-state current and ambient temperature

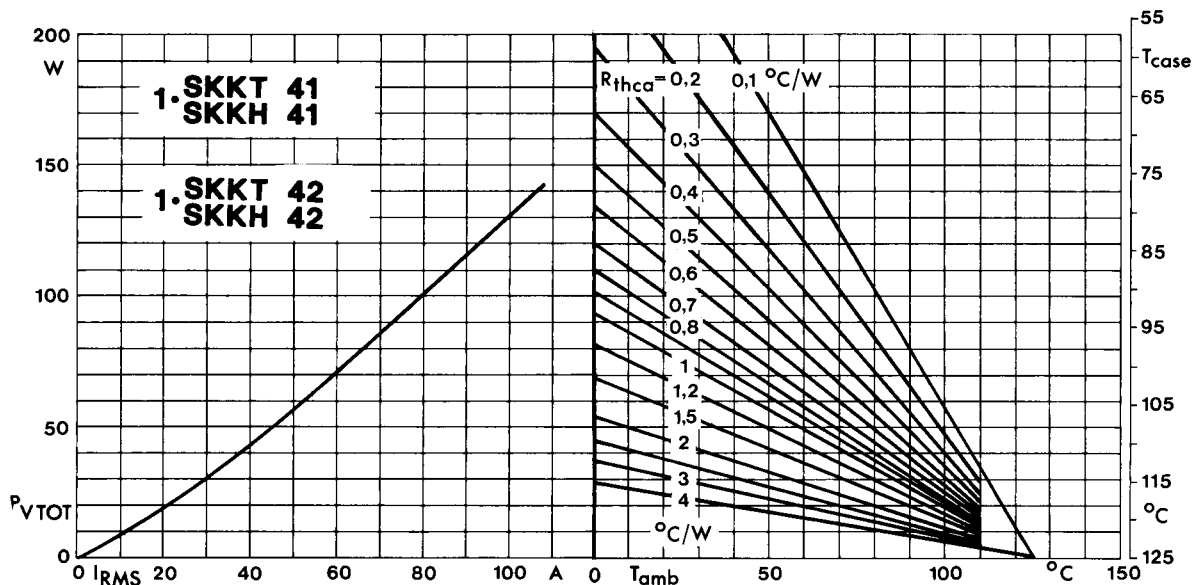


Fig. 2 Power dissipation per module vs. rms current and case temperature

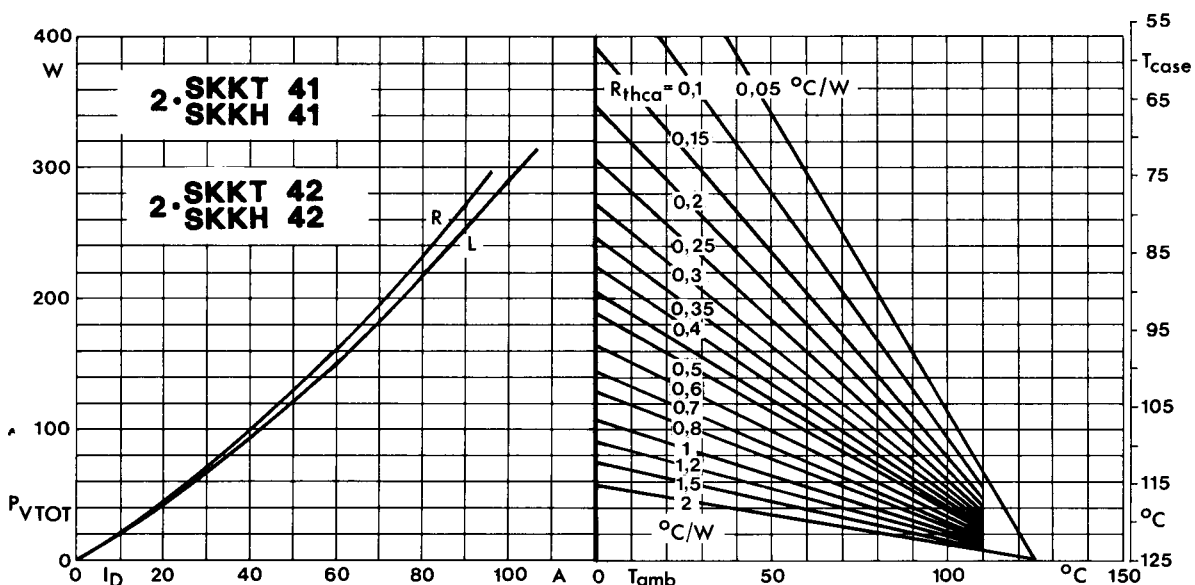


Fig. 3 Power dissipation of two modules vs. direct current and case temperature

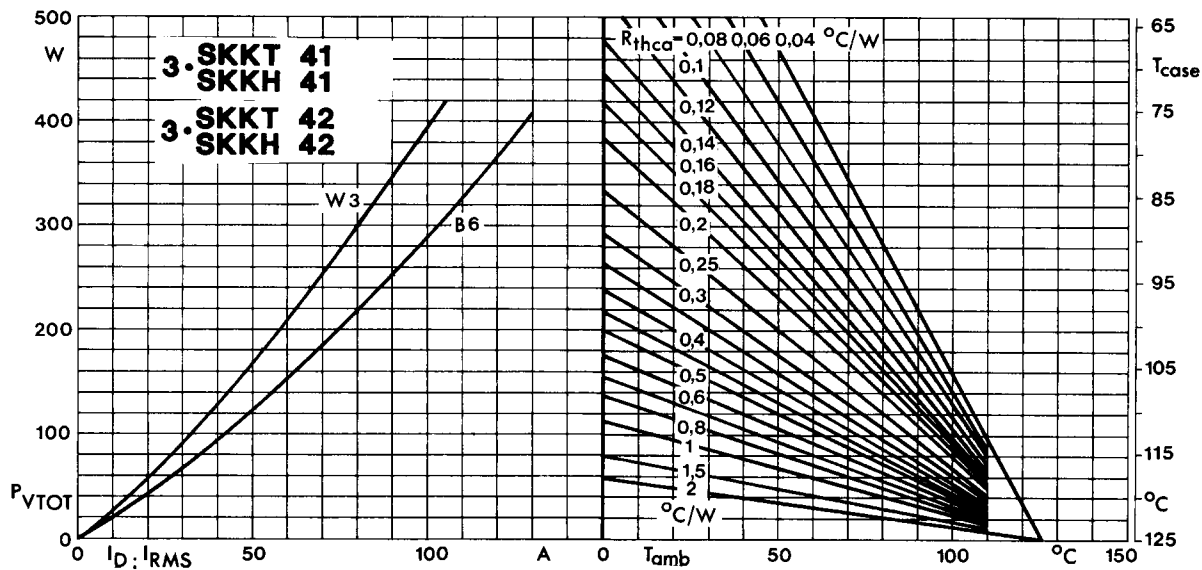


Fig. 4 Power dissipation of three modules vs. direct and rms current and case temperature

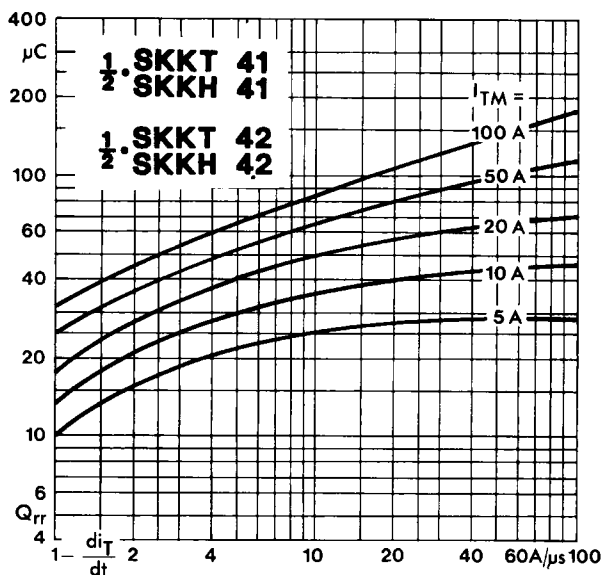


Fig. 5 Recovered charge vs. current decrease

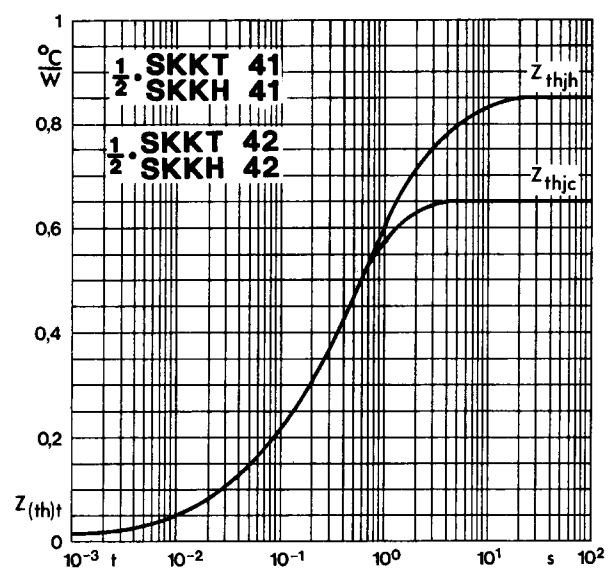


Fig. 6 Transient thermal impedance vs. time

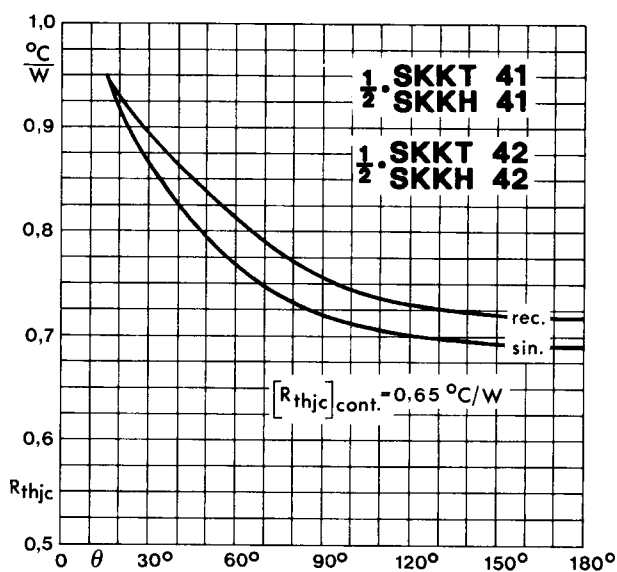


Fig. 7 Thermal resistance vs. conduction angle

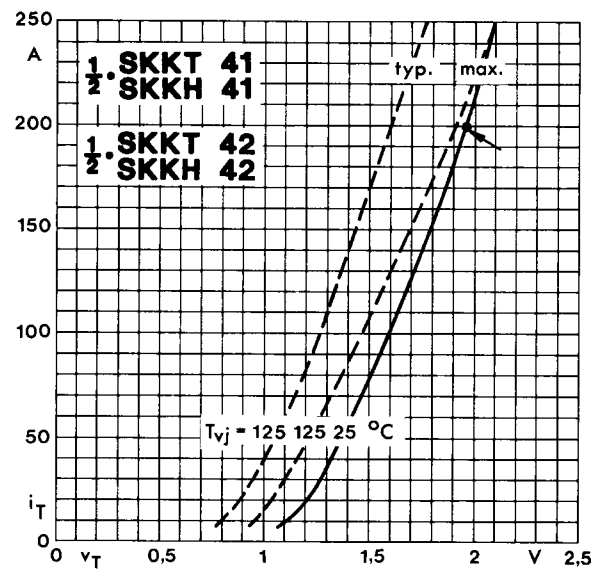


Fig. 8 On-state characteristics

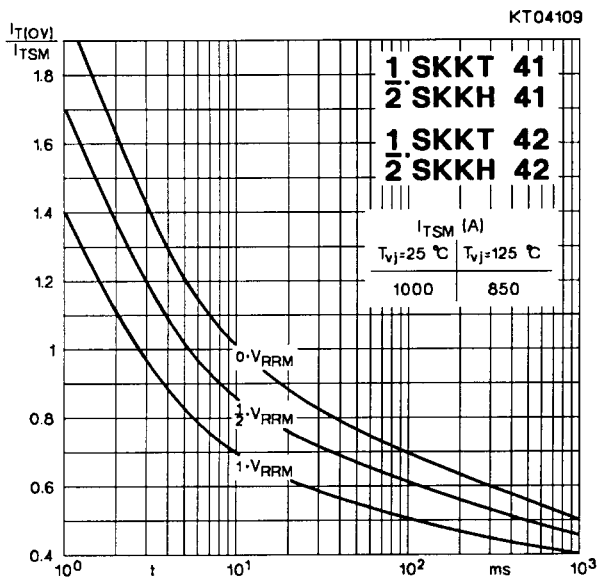


Fig. 9 Surge overload current vs. time

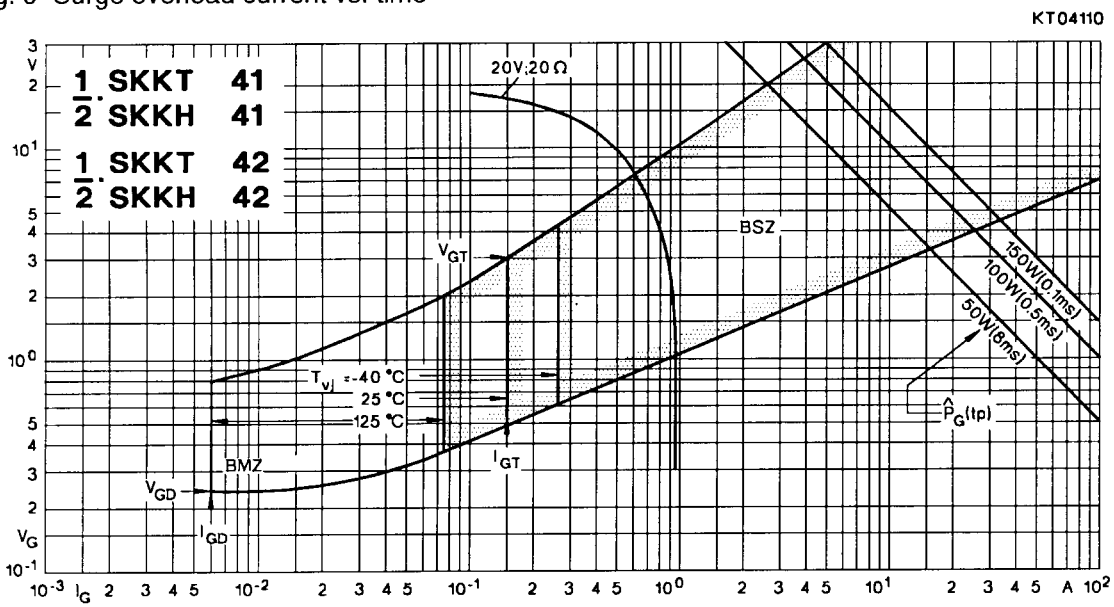


Fig. 10 Gate trigger characteristics

SKKT 19 ... 105

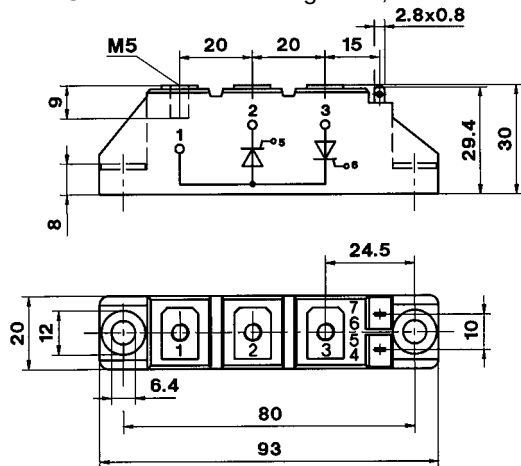
Case A 5

IEC 192-2: A 77 A

JEDEC: TO-240 AA

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UL recognized, file no. E 63 532



Dimensions in mm

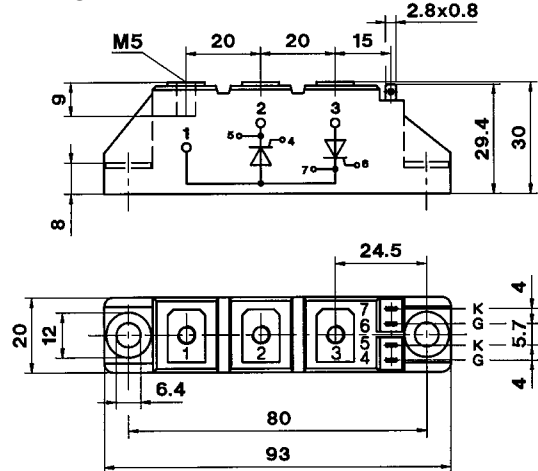
SKKT 20/ ... 106/

Case A 46

IEC 192-2: A 77 A

JEDEC: TO-240 AA

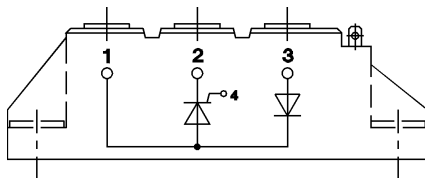
SEMIPACK® 1



Dimensions in mm

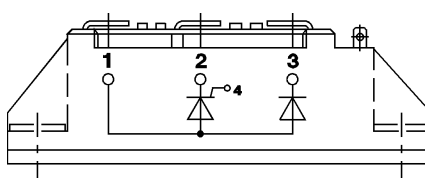
SKKH 26 ... 105

Case A 6



SKNH 56 ... 91

Case A 7



SKKL 56 ... 105

Case A 9

