

SKKT 57, SKKH 57, SKKT 57B



SEMIPACK[®] 1

Thyristor / Diode Modules

SKKT 57

SKKH 57

SKKT 57B

Features

- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532

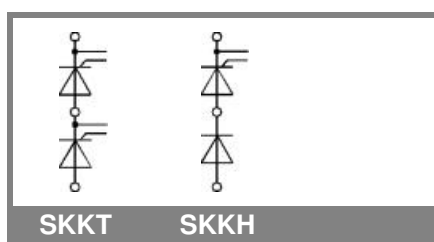
Typical Applications*

- 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) See the assembly instructions

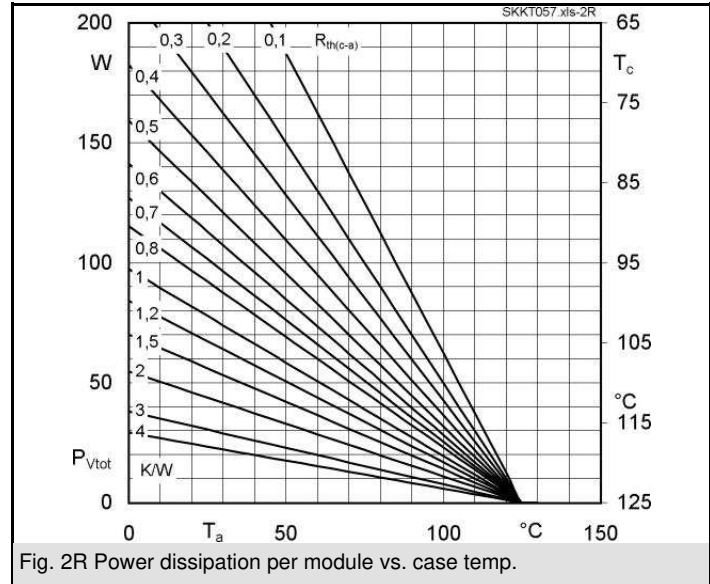
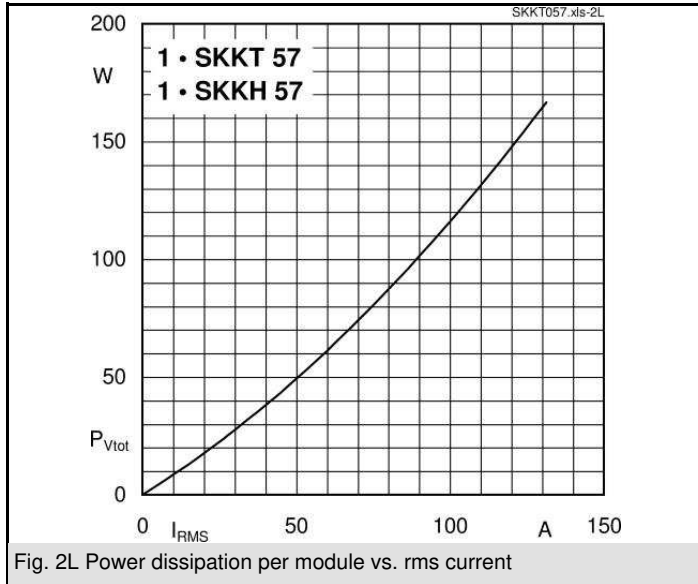
V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{TRMS} = 95 \text{ A}$ (maximum value for continuous operation) $I_{TAV} = 55 \text{ A}$ (sin. 180; $T_c = 80 \text{ }^{\circ}\text{C}$)		
1300	1200	SKKT 57/12 E	SKKT 57B12 E	SKKH 57/12 E
1700	1600	SKKT 57/16 E	SKKT 57B16 E	SKKH 57/16 E
1900	1800	SKKT 57/18 E	SKKT 57B18 E	SKKH 57/18 E

Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85 (100) \text{ }^{\circ}\text{C}$;	50 (35)	A
I_D	P3/180; $T_a = 45 \text{ }^{\circ}\text{C}$; B2 / B6	57 / 68	A
	P3/180F; $T_a = 35 \text{ }^{\circ}\text{C}$; B2 / B6	100 / 130	A
I_{RMS}	P3/180F; $T_a = 35 \text{ }^{\circ}\text{C}$; W1 / W3	130 / 3 x 100	A
I_{TSM}	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; 10 ms	1500	A
	$T_{vj} = 125 \text{ }^{\circ}\text{C}$; 10 ms	1250	A
i^2t	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; 8,3 ... 10 ms	11000	A ² s
	$T_{vj} = 125 \text{ }^{\circ}\text{C}$; 8,3 ... 10 ms	8000	A ² s
V_T	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; $I_T = 200 \text{ A}$	max. 1,65	V
$V_{T(TO)}$	$T_{vj} = 125 \text{ }^{\circ}\text{C}$	max. 0,9	V
r_T	$T_{vj} = 125 \text{ }^{\circ}\text{C}$	max. 3,5	m Ω
I_{DD}, I_{RD}	$T_{vj} = 125 \text{ }^{\circ}\text{C}$; $V_{RD} = V_{RRM}$; $V_{DD} = V_{DRM}$	max. 15	mA
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
$(di/dt)_{cr}$	$T_{vj} = 125 \text{ }^{\circ}\text{C}$	max. 150	A/ μs
$(dv/dt)_{cr}$	$T_{vj} = 125 \text{ }^{\circ}\text{C}$	max. 1000	V/ μs
t_q	$T_{vj} = 125 \text{ }^{\circ}\text{C}$	80	μs
I_H	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; typ. / max.	150 / 250	mA
I_L	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; $R_G = 33 \Omega$; typ. / max.	300 / 600	mA
V_{GT}	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; d.c.	min. 3	V
I_{GT}	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; d.c.	min. 150	mA
V_{GD}	$T_{vj} = 125 \text{ }^{\circ}\text{C}$; d.c.	max. 0,25	V
I_{GD}	$T_{vj} = 125 \text{ }^{\circ}\text{C}$; d.c.	max. 6	mA
$R_{th(j-c)}$	cont.; per thyristor / per module	0,57 / 0,29	K/W
$R_{th(j-c)}$	sin. 180; per thyristor / per module	0,6 / 0,3	K/W
$R_{th(j-c)}$	rec. 120; per thyristor / per module	0,64 / 0,32	K/W
$R_{th(c-s)}$	per thyristor / per module	0,2 / 0,1	K/W
T_{vj}		- 40 ... + 125	$^{\circ}\text{C}$
T_{stg}		- 40 ... + 125	$^{\circ}\text{C}$
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
M_s	to heatsink	$5 \pm 15 \text{ \%}^{1)}$	Nm
M_t	to terminals	$3 \pm 15 \text{ \%}$	Nm
a		$5 \cdot 9,81$	m/s ²
m	approx.	95	g
Case	SKKT	A 46	
	SKKT ...B	A 48	
	SKKH	A 47	

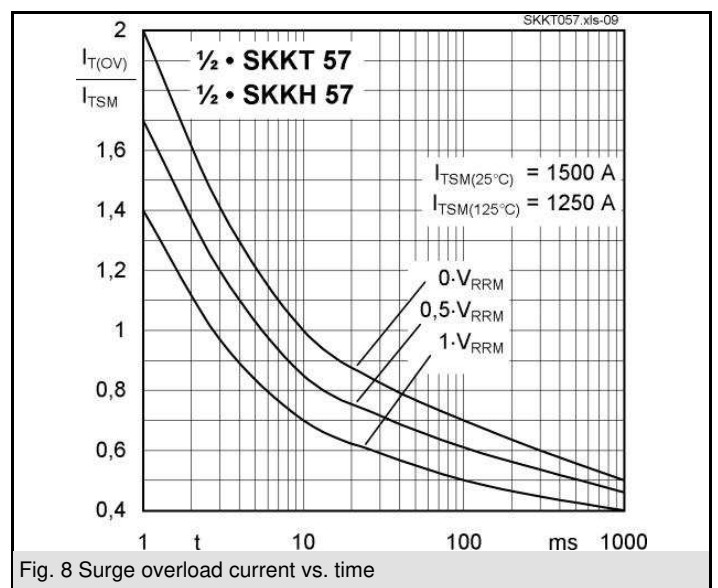
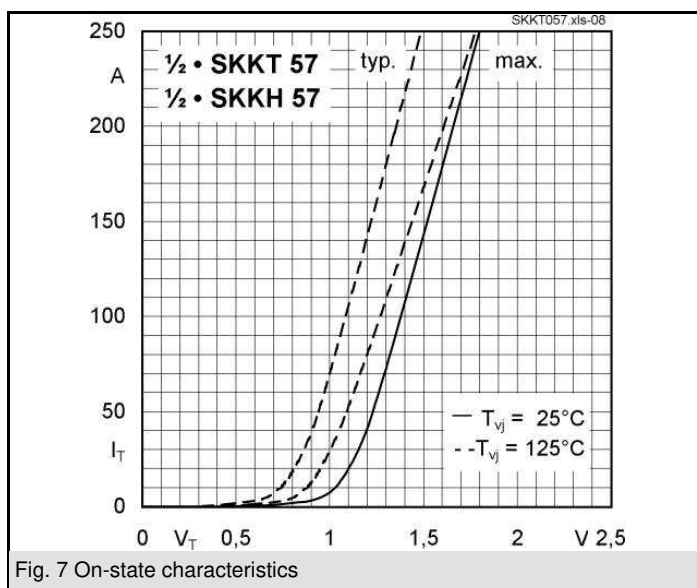
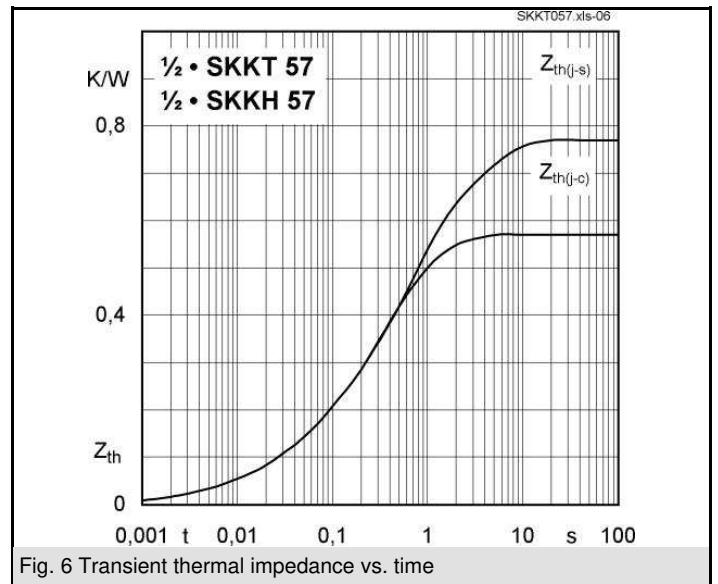
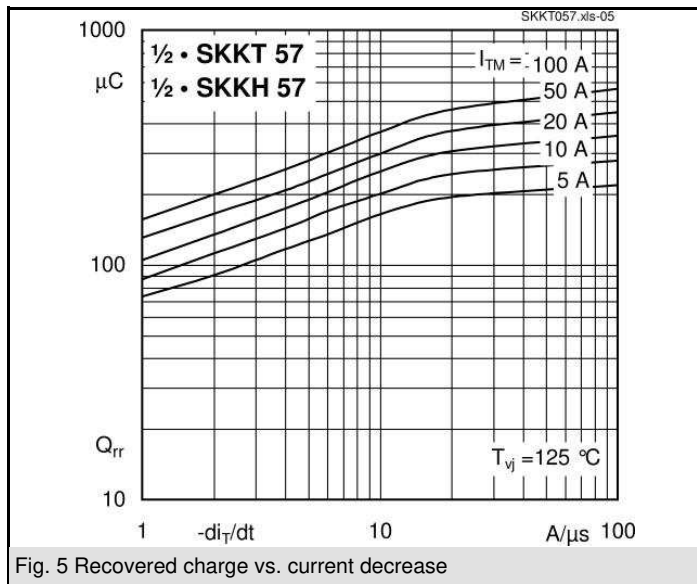
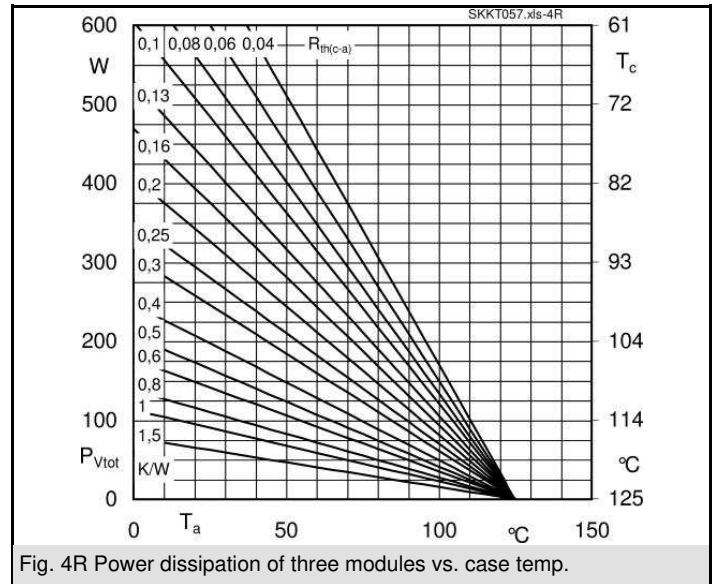
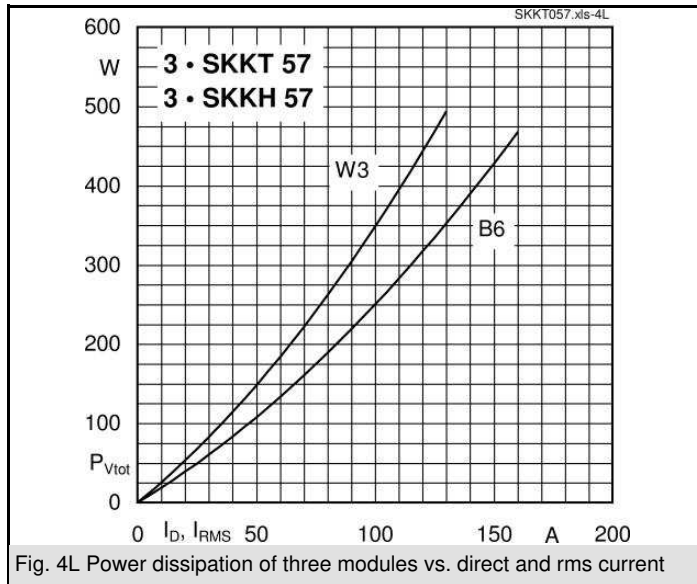


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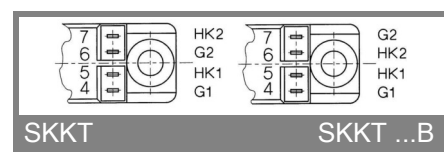
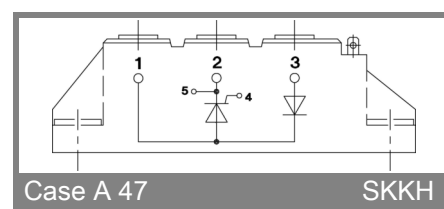
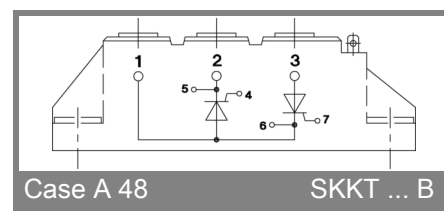
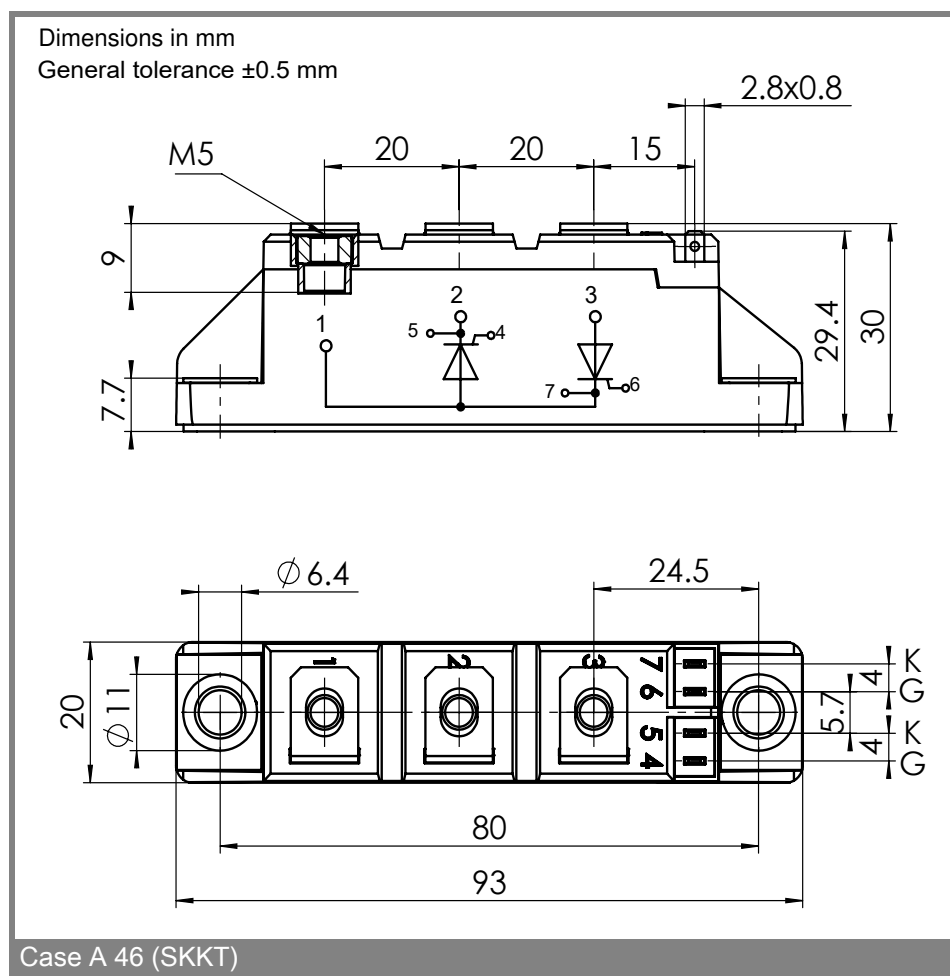
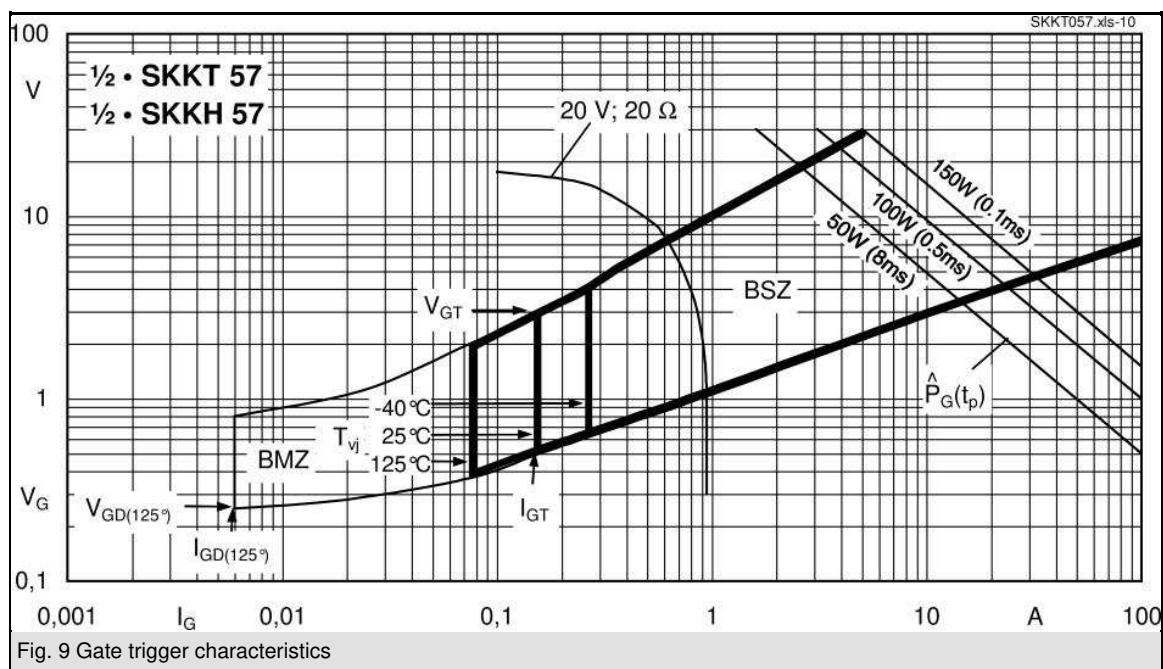
SKKH



SKKT 57, SKKH 57, SKKT 57B



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IMPORTANT INFORMATION AND WARNINGS

This is an electrostatic discharge sensitive device (ESDS) according to international standard IEC 61340.

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