

Features

- Heat transfer through aluminium oxide ceramic isolated metal
- Hard soldered joints for high reliability
- Space and weight savings

Typical Applications

- Various rectifiers
- AC/DC Motor drives
- DC supply for PWM inverter



Symbol	IRMS =95A (maximum value for continuous operation) ITAV= 55A (sin.180 ; Tc=80°C)					Units
	SKKT57/08E SKKH57/08E SKKT57B/08E	SKKT57/12E SKKH57/12E SKKT57B/12E	SKKT57/14E SKKH57/14E SKKT57B/14E	SKKT57/16E SKKH57/16E SKKT57B/16E	SKKT57/18E SKKH57/18E SKKT57B/18E	
VRRM ,VDRM	800	1200	1400	1600	1800	V
VRSM	900	1300	1500	1700	1900	V

Electrical characteristics

Symbol	Conditions	Values	Units
ITAV	sin.180; Tc=85(100)°C;	50(35)	A
ID	P3/180;Ta=45°C;B2/B6	57/68	A
	P3/180F;Ta=35°C;B2/B6	100/130	A
IRMS	P3/180F;Ta=35°C;W1/W3	130/3 * 100	A
ITSM	Tvj=25°C; 10ms	1500	A
	Tvj=125°C; 10ms	1250	A
I ² t	Tvj=25°C; 8.3...10ms	11000	A ² s
	Tvj=125°C; 8.3...10ms	8000	A ² s
VT	Tvj=25°C, IT=200A	max.1.65	V
VT(TO)	Tvj=125°C	max.0.9	V
r _r	Tvj=125°C	max.3.5	mΩ
IDD;IRD	Tvj=125°C, V _{RD} =V _{RRM} ; V _{DD} =V _{DRM}	max.15	mA
tgd	Tvj=25°C;I _G =1A;di _G /dt=1A/μs	1	μs
tgr	V _D =0.67*V _{DRM}	2	μs
(dv/dt) _{cr}	Tvj=125°C	max.1000	V/μs
(di/dt) _{cr}	Tvj=125°C	max.150	A/μs
tq	Tvj=125°C	80	μs
I _H	Tvj=25°C;typ./max.	150/250	mA
I _L	Tvj=25°C; R _G =33Ω; typ./max.	300/600	mA
V _{GT}	Tvj=25°C;d.c	min.3	V
I _{GT}	Tvj=25°C;d.c	min.150	mA
V _{GD}	Tvj=125°C;d.c	max.0.25	V
I _{GD}	Tvj=125°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(j-s)}	per thyristor/per module	0.2/0.1	K/W
Tvj		-40...+125	°C
T _{stg}		-40...+125	°C

V_{isol}	a.c.50Hz; r.m.s; 1s/1min.	3600/3000	V~
M_s	to heatsink	$5 \pm 15\%$	Nm
M_t	to terminals	$3 \pm 15\%$	Nm
a		$5 \cdot 9.81$	m/s^2
m	approx.	95	g

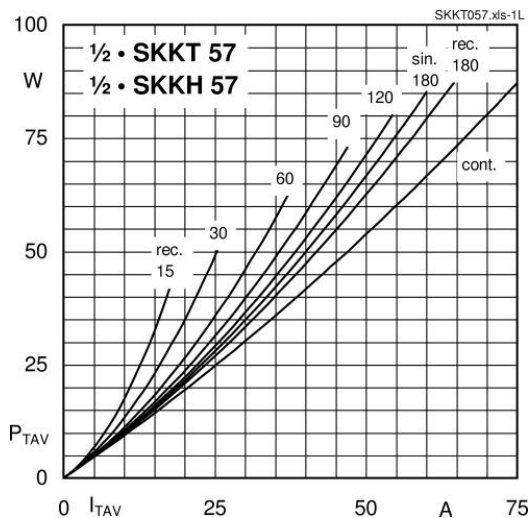


Fig. 1L Power dissipation per thyristor vs. on-state current

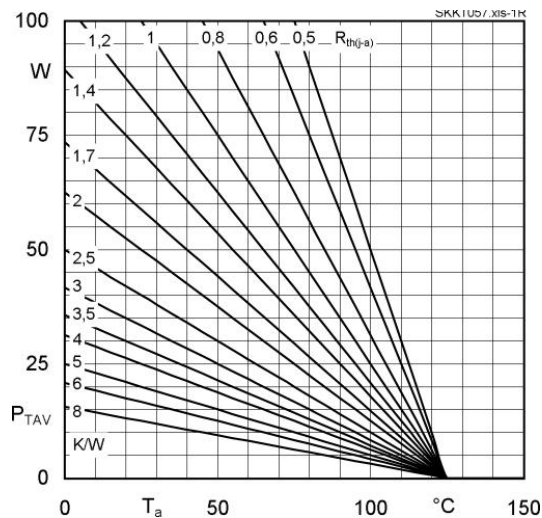


Fig. 1R Power dissipation per thyristor vs. ambient temp.

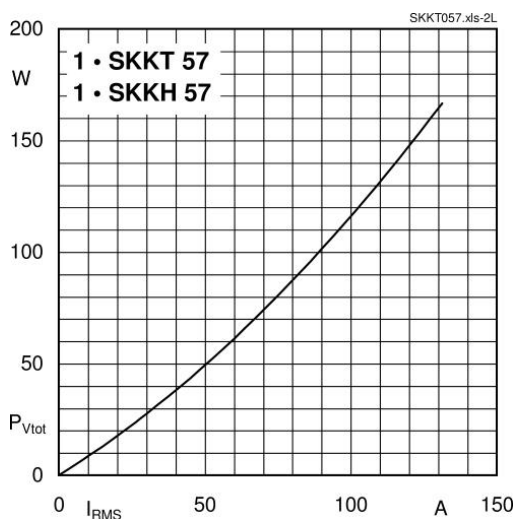


Fig. 2L Power dissipation per module vs. rms current

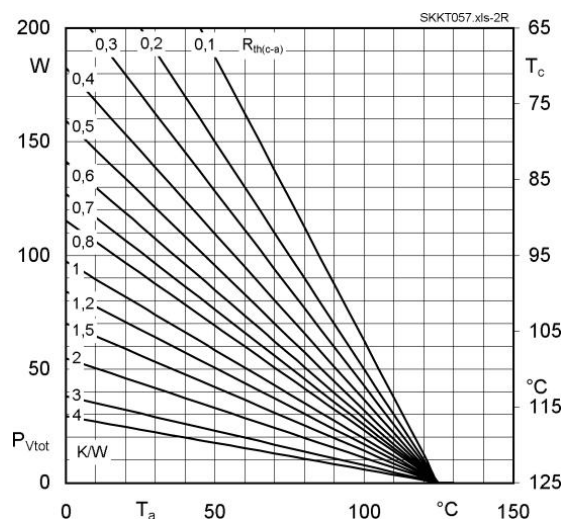


Fig. 2R Power dissipation per module vs. case temp.

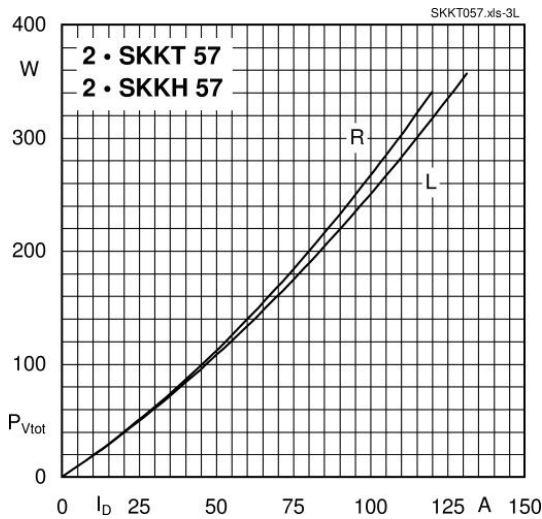


Fig. 3L Power dissipation of two modules vs. direct current

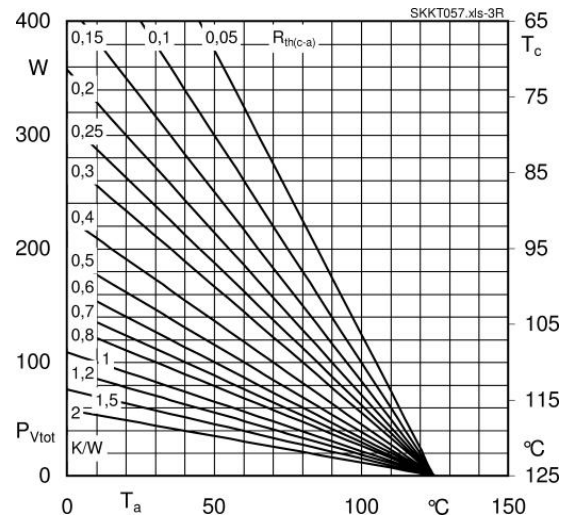


Fig. 3R Power dissipation of two modules vs. case temp.

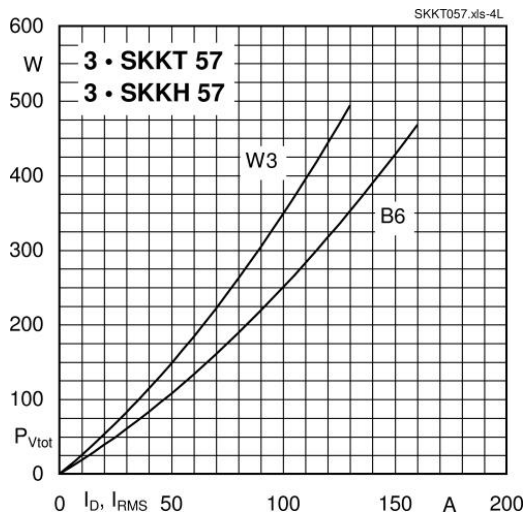


Fig. 4L Power dissipation of three modules vs. direct and rms current

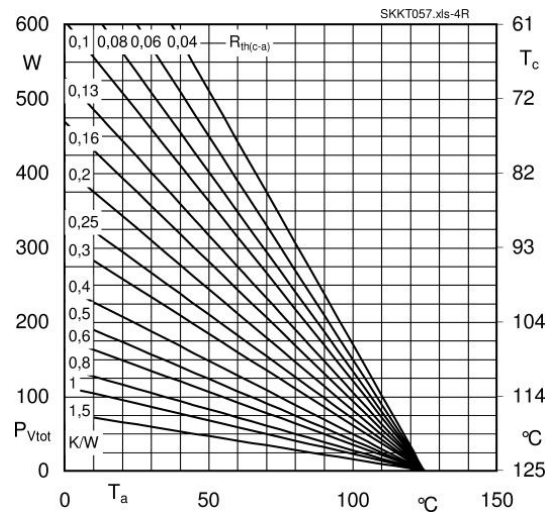


Fig. 4R Power dissipation of three modules vs. case temp.

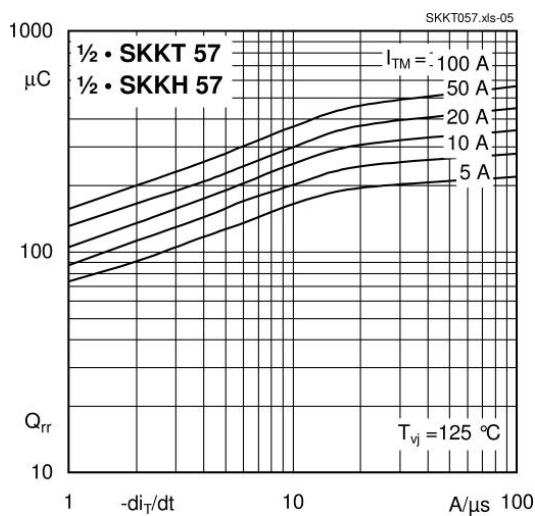


Fig. 5 Recovered charge vs. current decrease

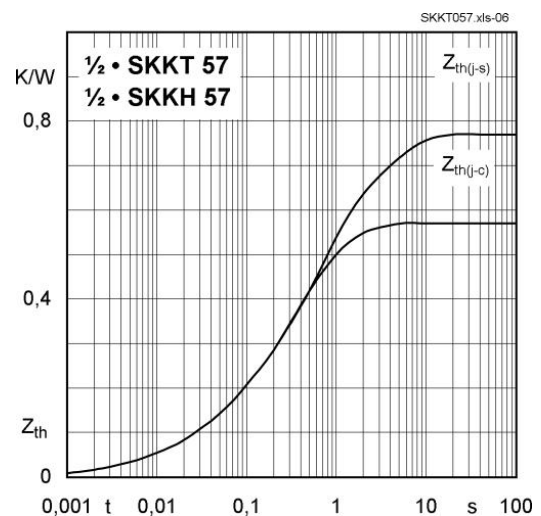


Fig. 6 Transient thermal impedance vs. time

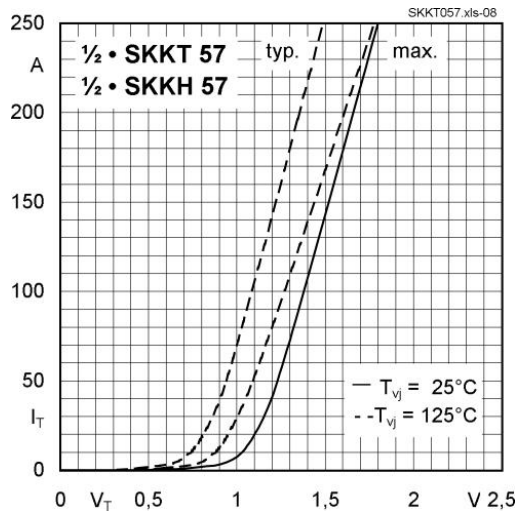


Fig. 7 On-state characteristics

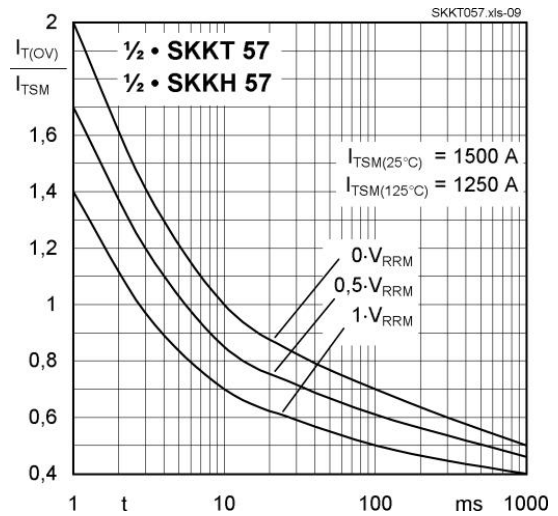


Fig. 8 Surge overload current vs. time

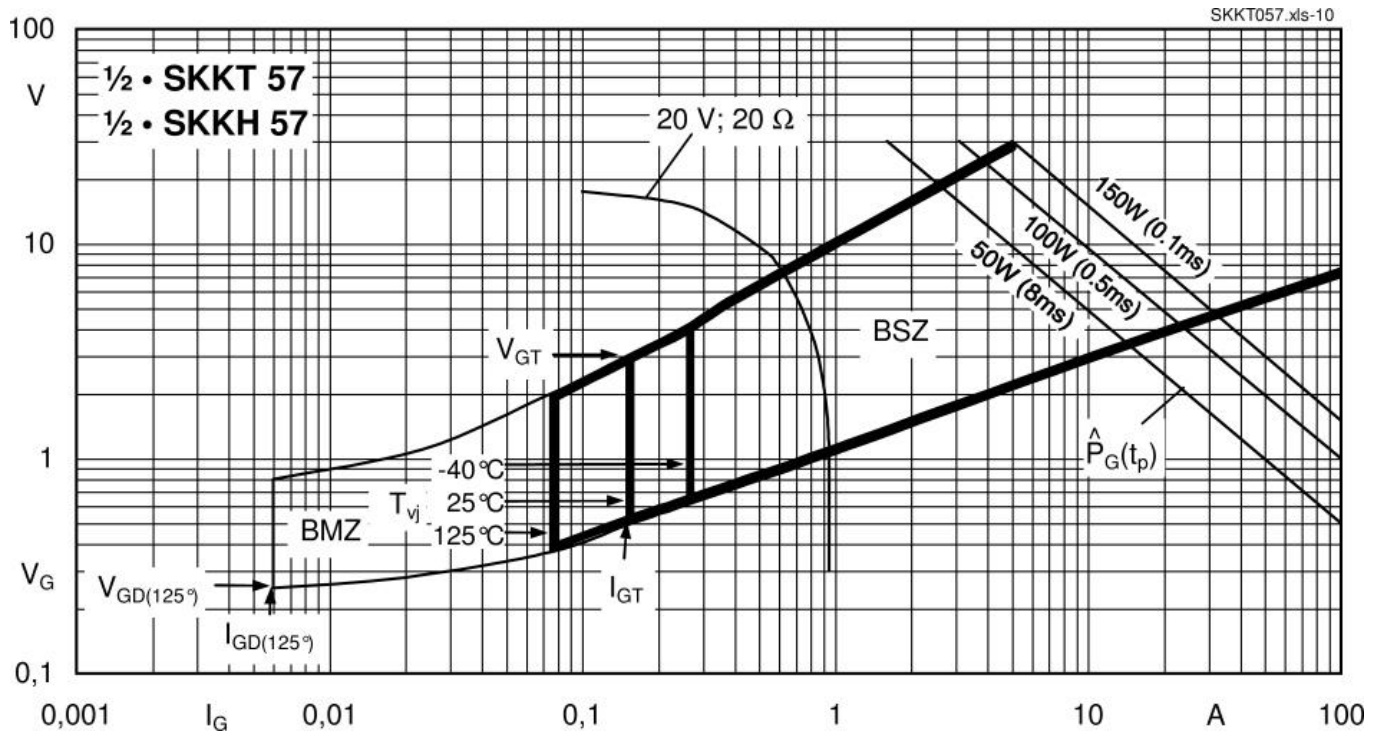
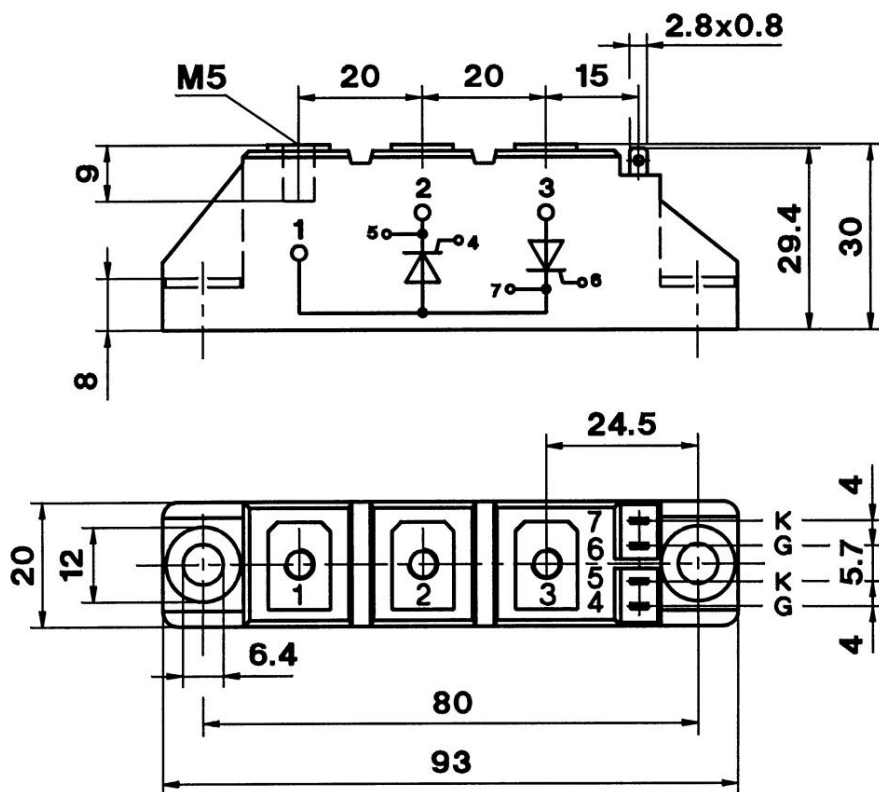
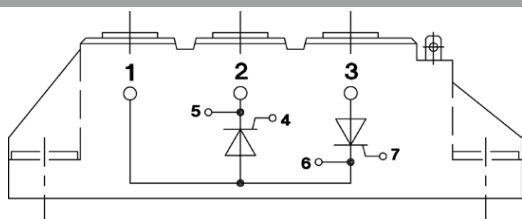


Fig. 9 Gate trigger characteristics

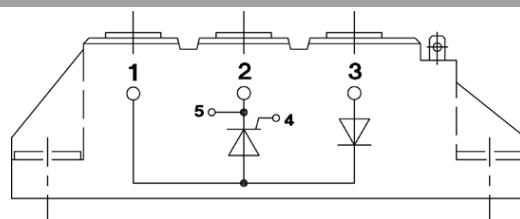


Case A 46 (SKKT)



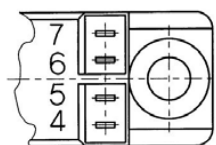
Case A 48

SKKT ... B

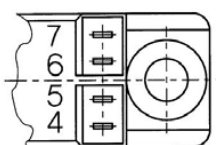


Case A 47

SKKH



SKKT



SKKT ...B