

SKKT106,SKKH106,SKKT106B

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=180A (maximum value for continuous operation) ITAV=106A (sin.180; Tc=85°C)						Units
	SKKT106/08E	SKKT106/12E	SKKT106/16E	SKKT106/18E	SKKH106/08E	SKKH106/18E	
VRRM, VDRM	800	1200	1600	1800	800	1800	V
VRSM	900	1300	1700	1900	900	1900	V

Electrical characteristics

Symbol	Conditions	Values	Units
ITAV	sin.180; Tc=85(100)°C;	106(78)	A
ID	P3/180F; Ta=35°C; B2/B6	145/180	A
	P3/200F; Ta=35°C; B2/B6	19/260	A
IRMS	P3/180F; Ta=35°C; W1/W3	260/3 x 140	A
ITSM	Tvj=25°C; 10ms	2250	A
	Tvj=125°C; 10ms	1250	A
I ² t	Tvj=25°C; 8.3...10ms	25000	A ² s
	Tvj=130°C; 8.3...10ms	18000	A ² s
VT	Tvj=25°C, IT=300A	max.1.65	V
VT(TO)	Tvj=130°C	max.0.9	V
rT	Tvj=130°C	max.2	mΩ
IDD;IRD	Tvj=130°C, VRD=VRRM; VDD=VDRM	max.20	mA
tgd	Tvj=25°C; IG=1A; diG/dt=1A/μs	1	μs
tgr	VD=0.67*VDRM	2	μs
(dv/dt)cr	Tvj=130°C	max.1000	V/μs
(di/dt)cr	Tvj=130°C	max.150	A/μs
tq	Tvj=130°C	100	μs
IH	Tvj=25°C; typ./max.	150/250	mA
IL	Tvj=25°C; RG=33Ω; typ./max.	300/600	mA
VGT	Tvj=25°C; d.c	min.3	V
IGT	Tvj=25°C; d.c	min.150	mA
VGD	Tvj=130°C; d.c	max.0.25	V
IGD	Tvj=130°C; d.c	max.6	mA
Rth(j-c)	cont.per thyristor/per module	0.28/0.14	K/W
Rth(j-c)	sin.180;per thyristor/per module	0.3/0.15	K/W
Rth(j-c)	rec.120;per thyristor/per module	0.32/0.16	K/W
Rth(j-s)	per thyristor/per module	0.2/0.1	K/W
Tvj		-40...+130	°C
Tstg		-40...+125	°C
Visol	a.c.50Hz; r.m.s; 1s/1min.	3600/3000	V~
Ms	to heatsink	5±15% ¹⁾	Nm
Mt	to terminals	3±15%	Nm
a		5*9.81	m/s ²
m	approx.	95	g

SKKT106,SKKH106,SKKT106B

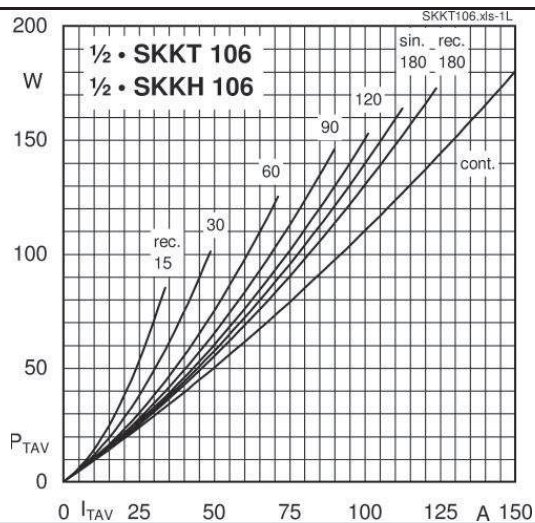


Fig. 1L Power dissipation per thyristor vs. on-state current

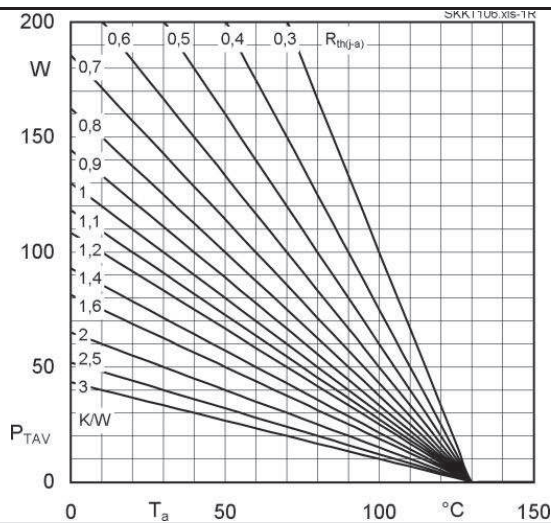


Fig. 1R Power dissipation per thyristor vs. ambient temp.

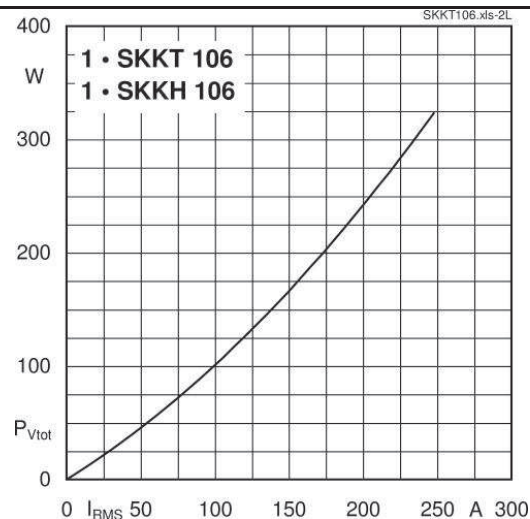


Fig. 2L Power dissipation per module vs. rms current

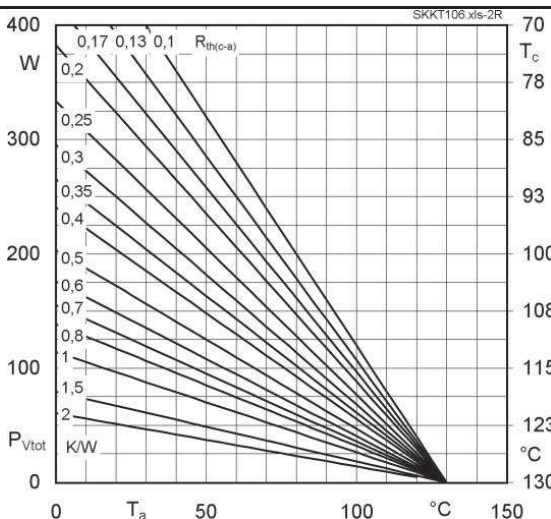


Fig. 2R Power dissipation per module vs. case temp.

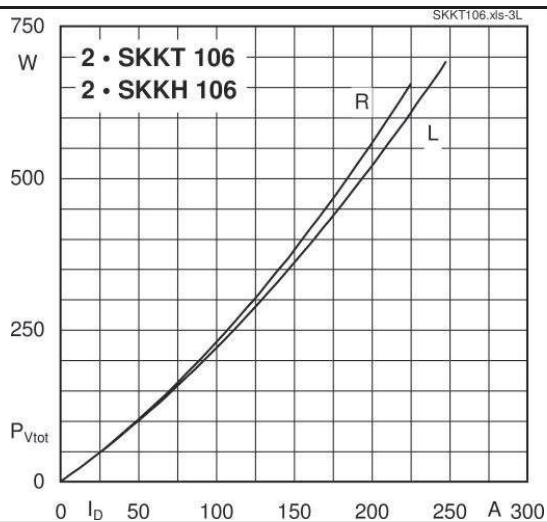


Fig. 3L Power dissipation of two modules vs. direct current

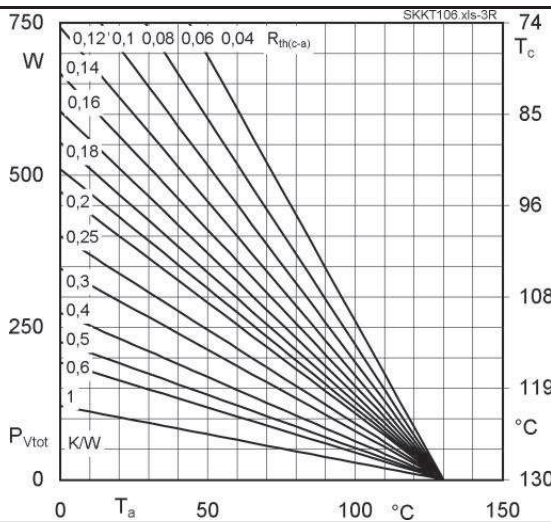


Fig. 3R Power dissipation of two modules vs. case temp.

SKKT106,SKKH106,SKKT106B

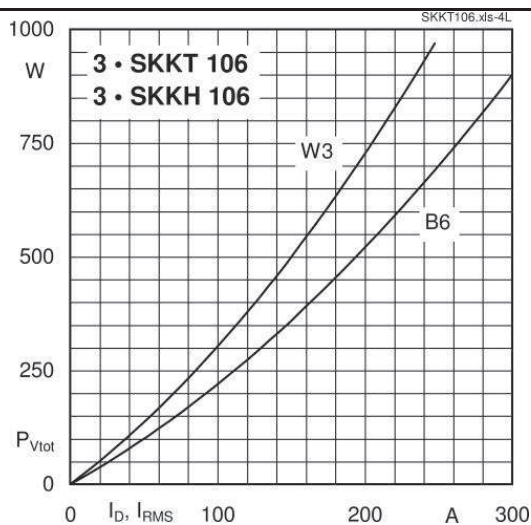


Fig. 4L Power dissipation of three modules vs. direct and rms current

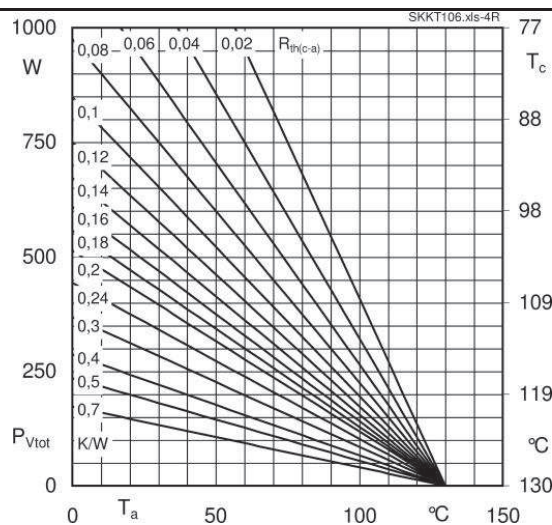


Fig. 4R Power dissipation of three modules vs. case temp.

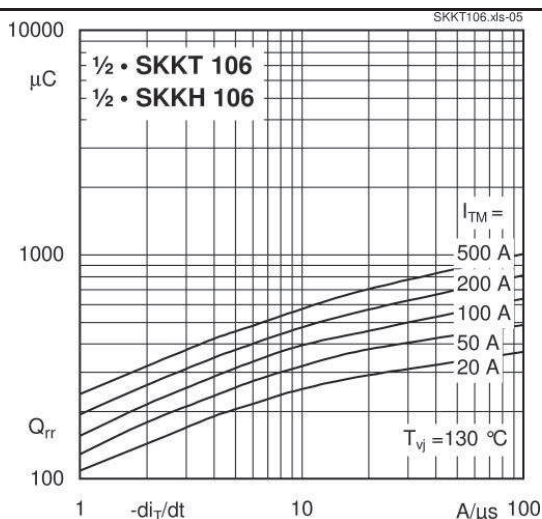


Fig. 5 Recovered charge vs. current decrease

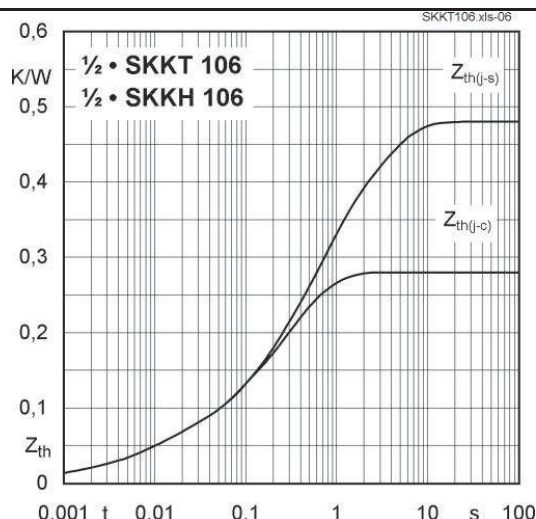


Fig. 6 Transient thermal impedance vs. time

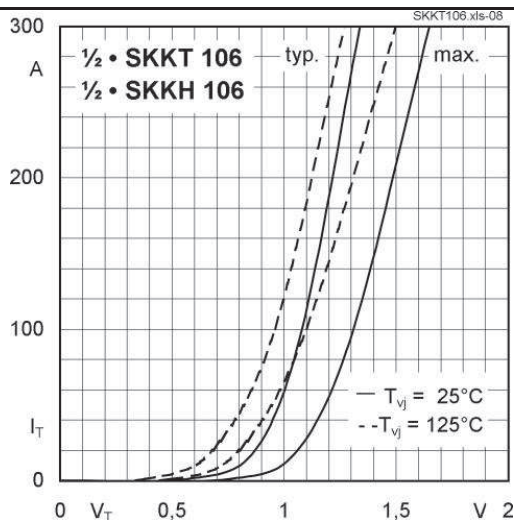


Fig. 7 On-state characteristics

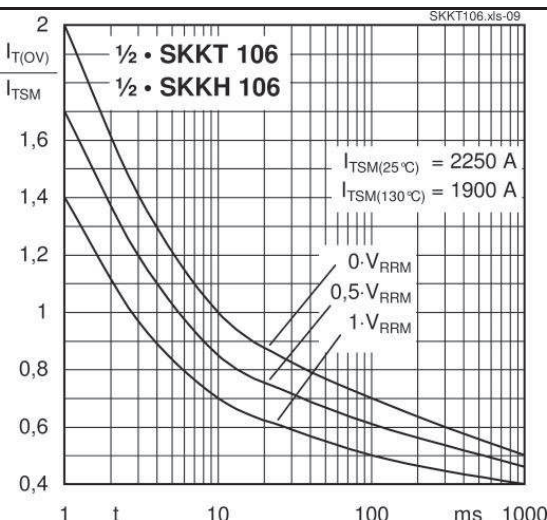


Fig. 8 Surge overload current vs. time

SKKT106,SKKH106,SKKT106B

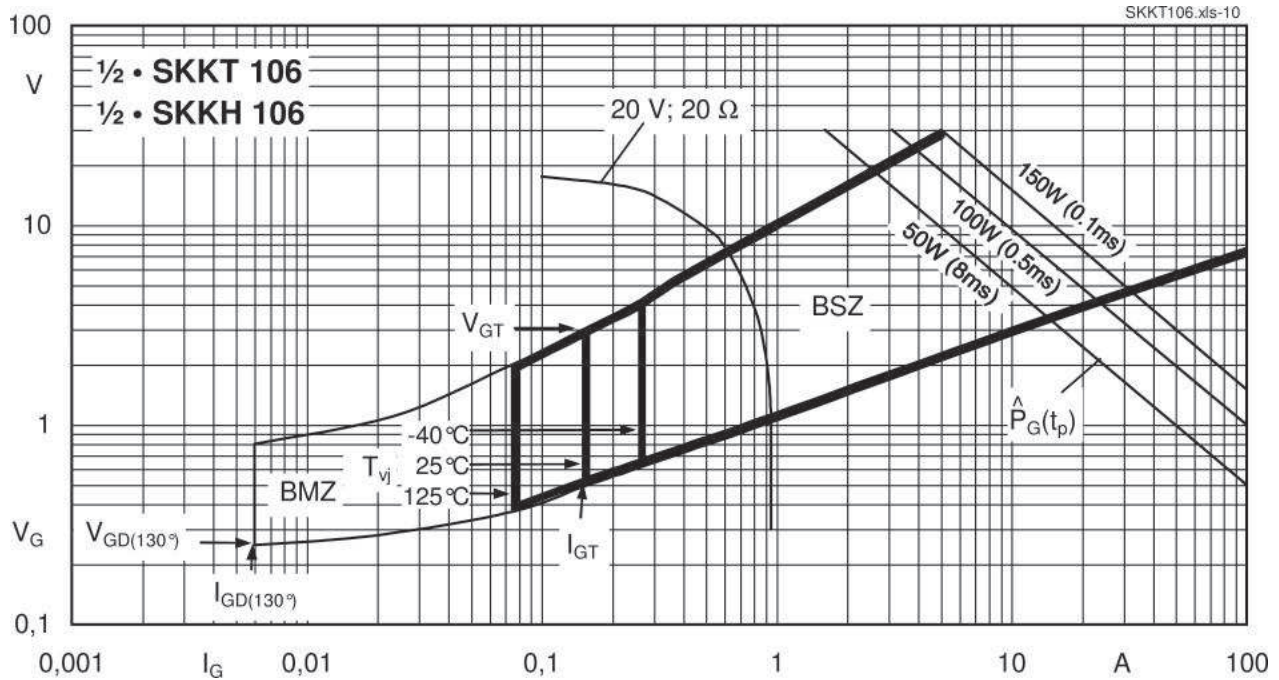
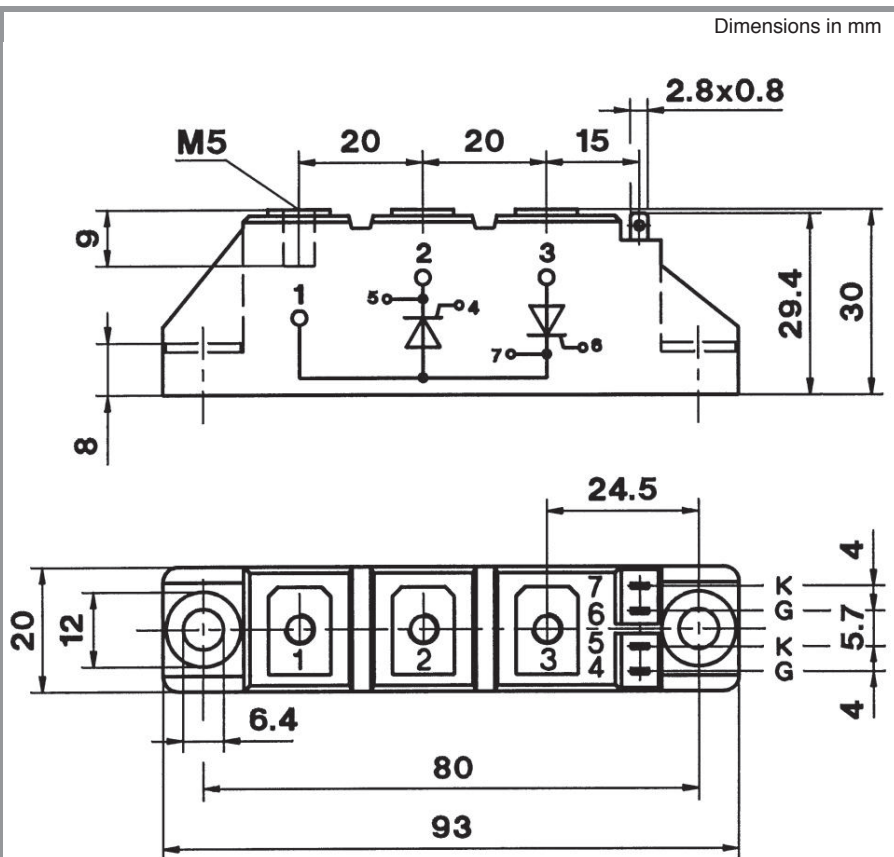


Fig. 9 Gate trigger characteristics



Case A 46 (SKKT)

