

SKKT273,SKKH273

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

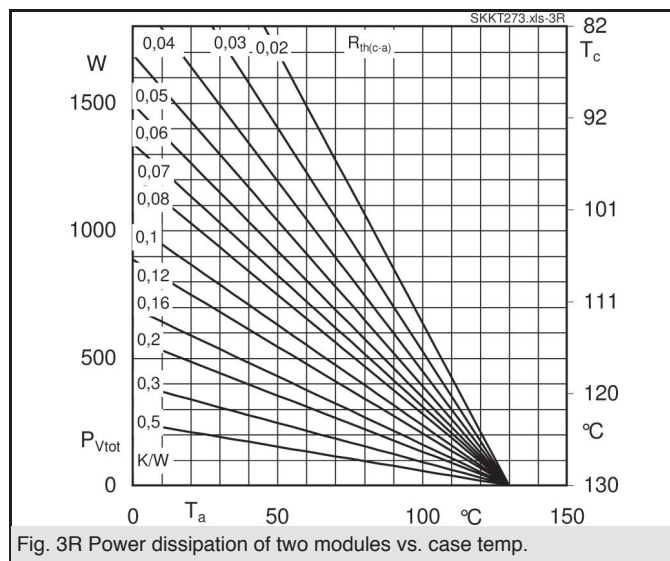
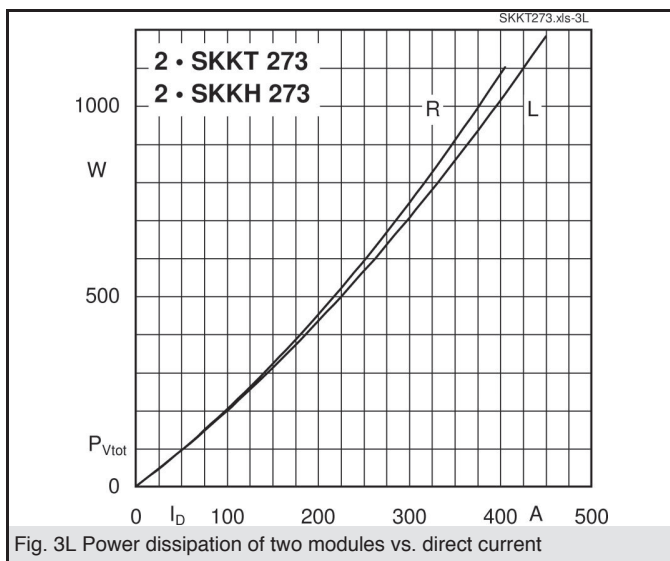
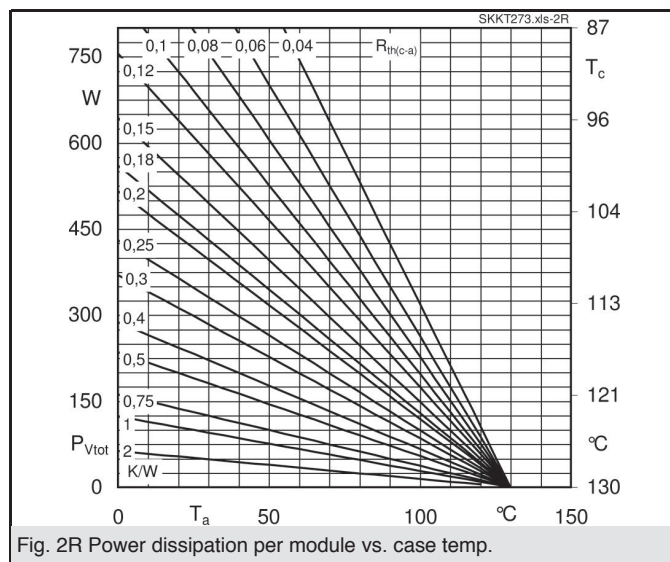
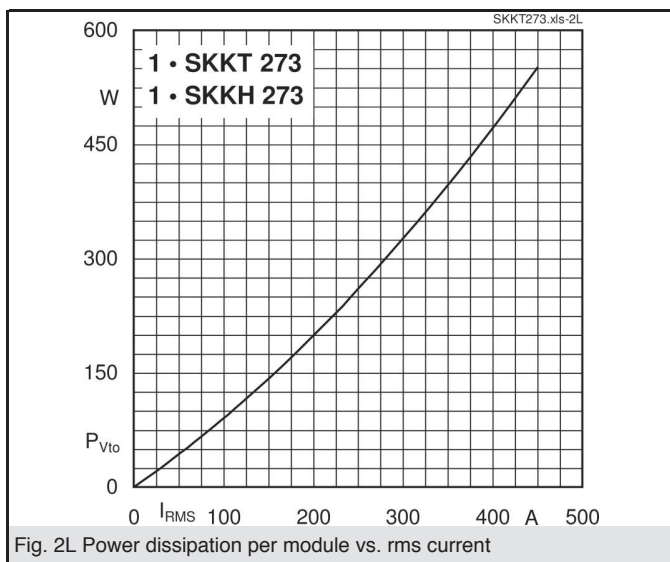
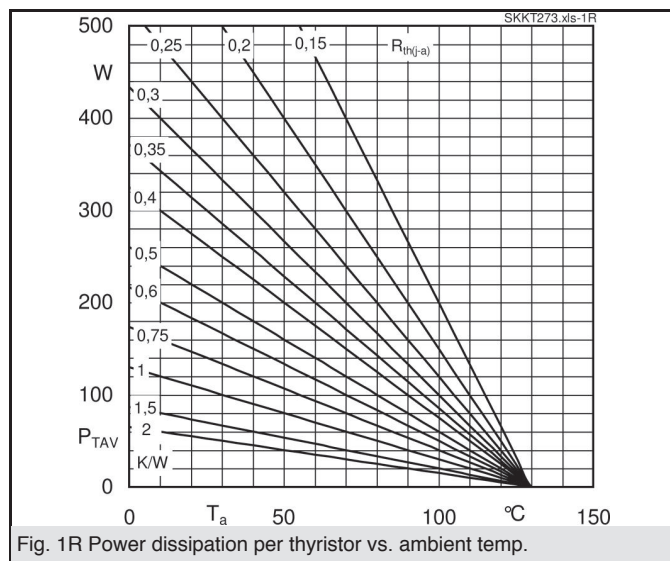
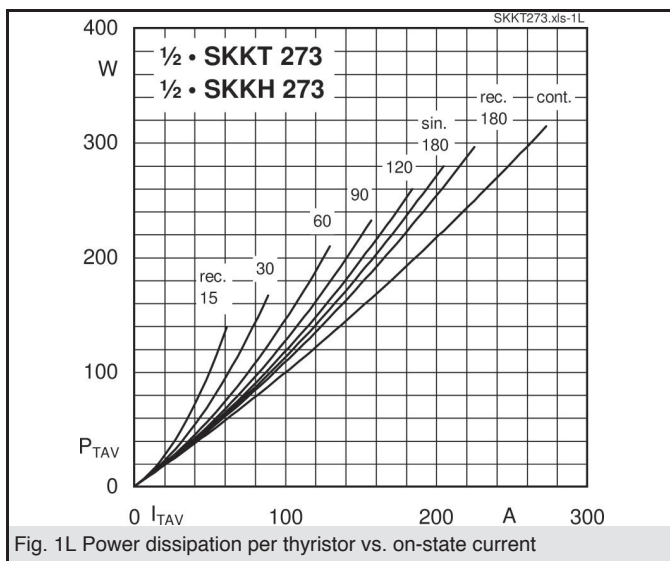


Symbol	IRMS=450A (maximum value for continuous operation) ITAV=273A (sin.180; Tc=85°C)				Units
	SKKT273/12E	SKKT273/16E	SKKH273/12E	SKKH273/16E	
VRRM,VDRM	1200	1600	1200	1600	V
VRSM	1300	1700	1300	1700	V

Electrical characteristics

Symbol	Conditions	Values	Units
ITAV	sin.180; Tc=85(100)°C;	273(202)	A
ITSM	Tvj=25°C; 10ms	9000	A
	Tvj=130°C; 10ms	8000	A
I²t	Tvj=25°C; 8.3...10ms	405000	A²s
	Tvj=130°C; 8.3...10ms	320000	A²s
VT	Tvj=25°C, IT=750A	max1.6	V
VT(TO)	Tvj=130°C	max.0.9	V
rT	Tvj=130°C	max.0.92	mΩ
IDD;IRD	Tvj=130°C, VRD=VRRM; VDD=VDRM	max.100	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.130	A/μs
tq	Tvj=130°C	150	μs
IH	Tvj=25°C;typ/max.	150/500	mA
IL	Tvj=25°C; RG=33Ω; typ./max.	300/2000	mA
VGT	Tvj=25°C;d.c	min.2	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.10	mA
Rth(j-c)	cont.per thyristor/per module	0.104/0.052	K/W
Rth(j-c)	sin.180;per thyristor/per module	0.108/0.054	K/W
Rth(j-c)	rec.120;per thyristor/per module	0.122/0.61	K/W
Rth(j-s)	per thyristor/per module	0.08/0.04	K/W
Tvj		-40...+125	°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	9±15%	Nm
a		5*9.81	m/s²
m	approx.	410	g

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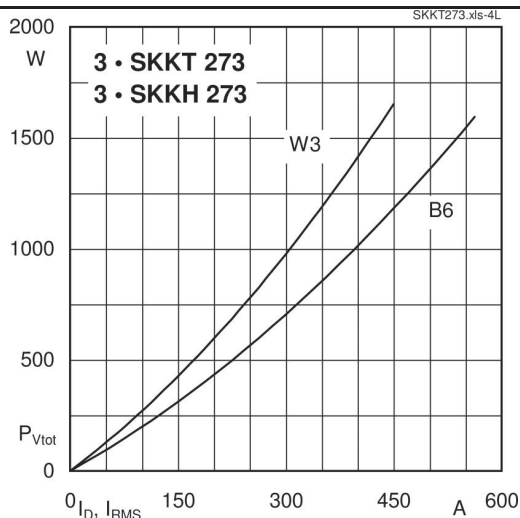


Fig. 4L Power dissipation of three modules vs. direct and rms current

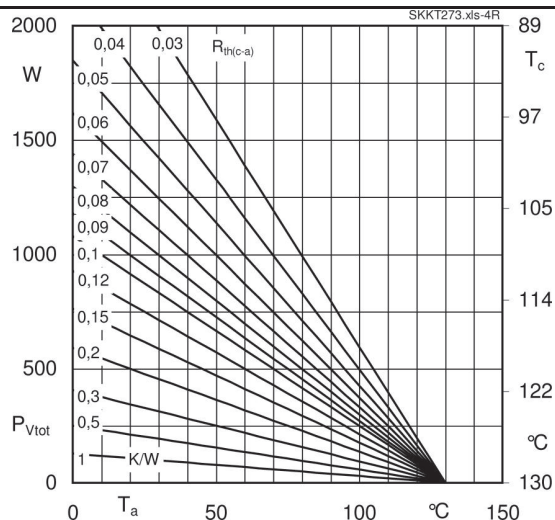


Fig. 4R Power dissipation of three modules vs. case temp.

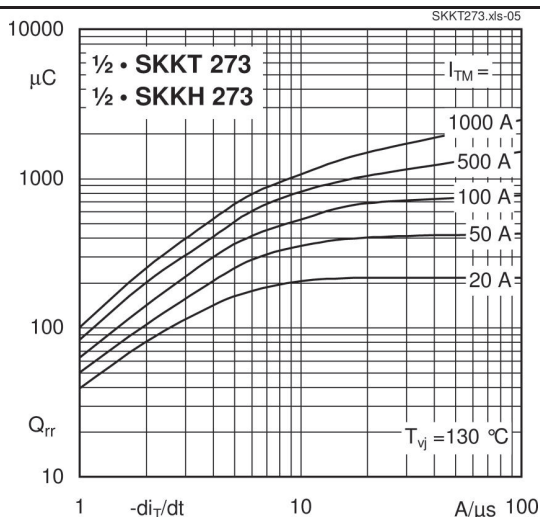


Fig. 5 Recovered charge vs. current decrease

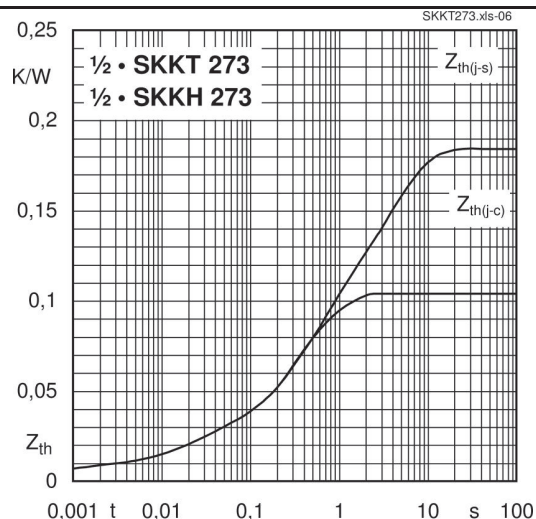


Fig. 6 Transient thermal impedance vs. time

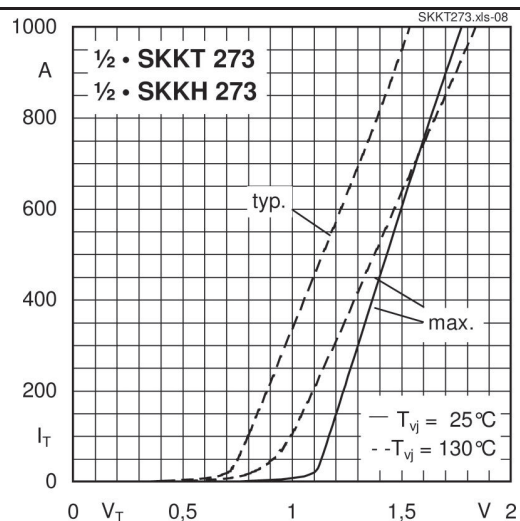


Fig. 7 On-state characteristics

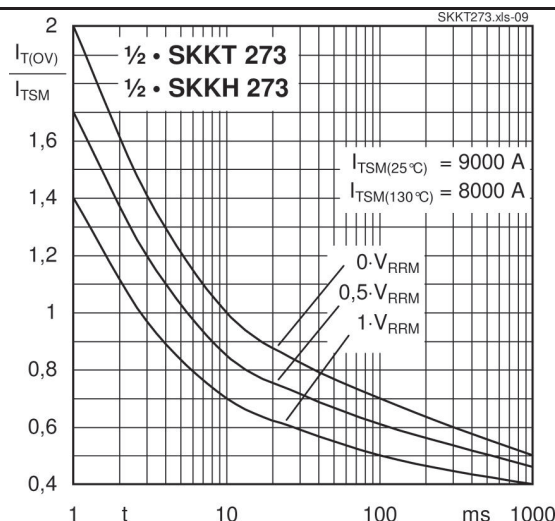


Fig. 8 Surge overload current vs. time

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