

SKKT323,SKKH323

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=520A (maximum value for continuous operation) ITAV=323A (sin.180; Tc=84°C)				Units
	SKKT323/12E	SKKT323/16E	SKKH323/12E	SKKH323/16E	
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;	320(241)	A
ITSM	Tvj=25°C; 10ms	9500	A
	Tvj=130°C; 10ms	8200	A
I²t	Tvj=25°C; 8.3...10ms	450000	A²s
	Tvj=130°C; 8.3...10ms	336000	A²s
VT	Tvj=25°C, IT=750A	max.1.45	V
VT(TO)	Tvj=130°C	max.0.81	V
rT	Tvj=130°C	max.0.85	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	0.091/0.0455	K/W
Rth(j-c)	sin.180;per thyristor/per module	0.095/0.475	K/W
Rth(j-c)	rec.120;per thyristor/per module	0.11/0.55	K/W
Rth(j-s)	per thyristor/per module	0.08/0.04	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	9±15%	Nm
a		5*9.81	m/s²
m	approx.	410	g

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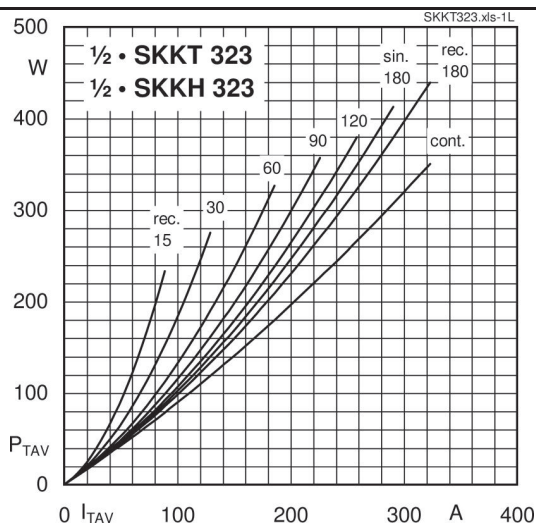


Fig. 1L Power dissipation per thyristor vs. on-state current

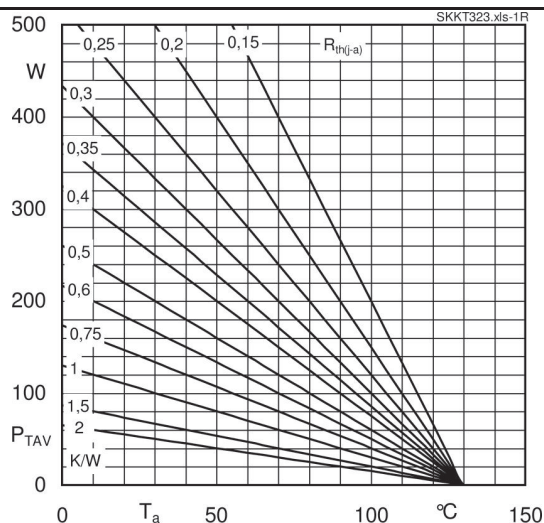


Fig. 1R Power dissipation per thyristor vs. ambient temp.

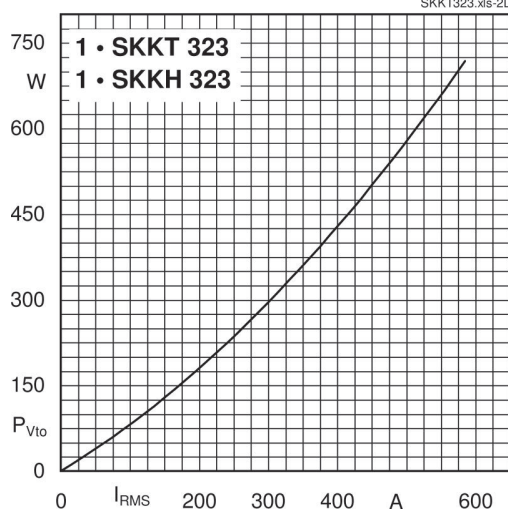


Fig. 2L Power dissipation per module vs. rms current

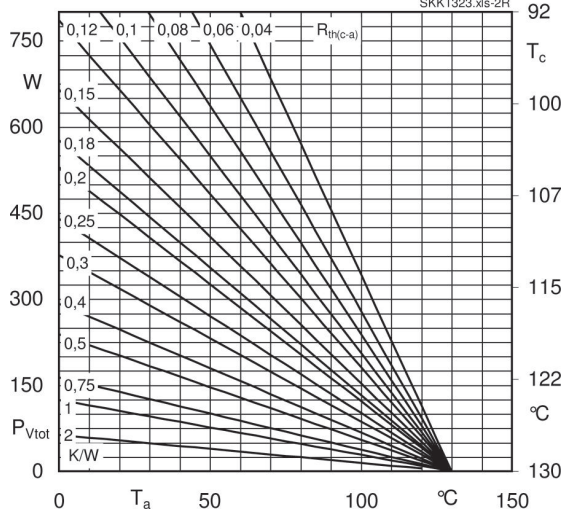


Fig. 2R Power dissipation per module vs. case temp.

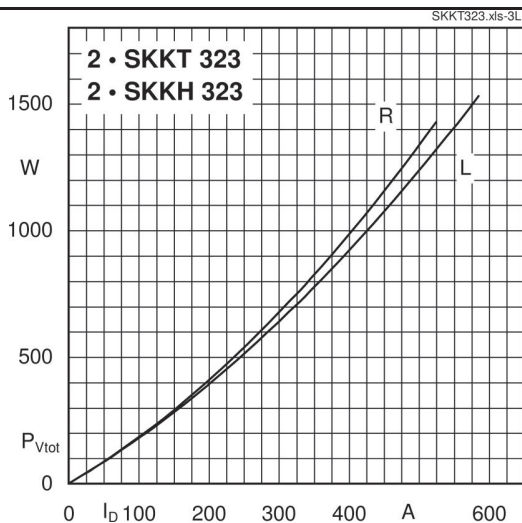


Fig. 3L Power dissipation of two modules vs. direct current

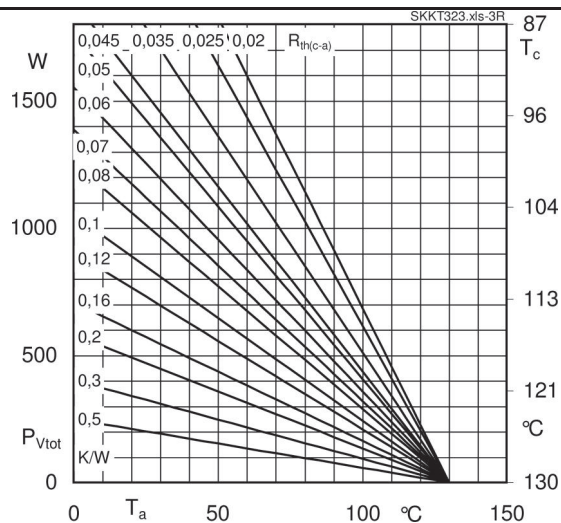


Fig. 3R Power dissipation of two modules vs. case temp.

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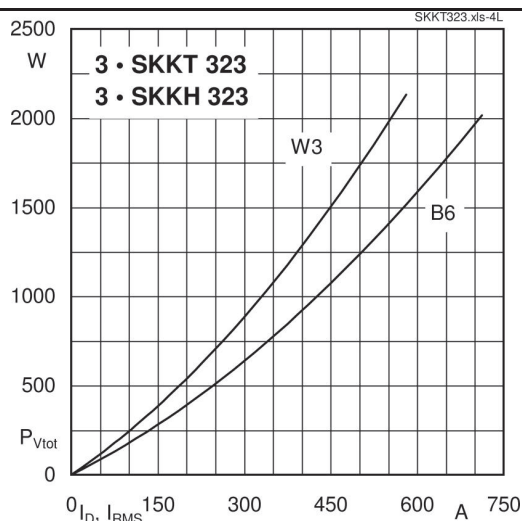


Fig. 4L Power dissipation of three modules vs. direct and rms current

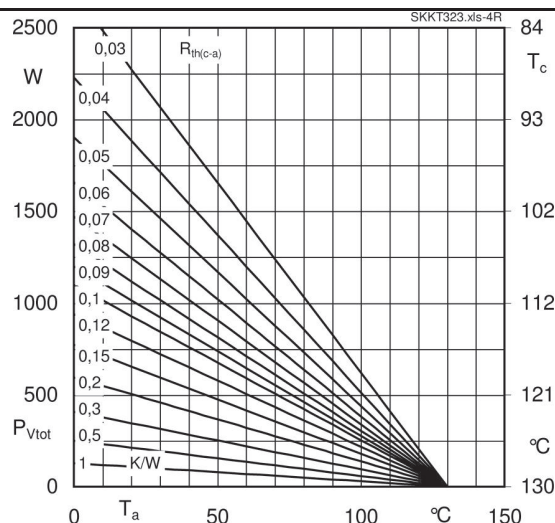


Fig. 4R Power dissipation of three modules vs. case temp.

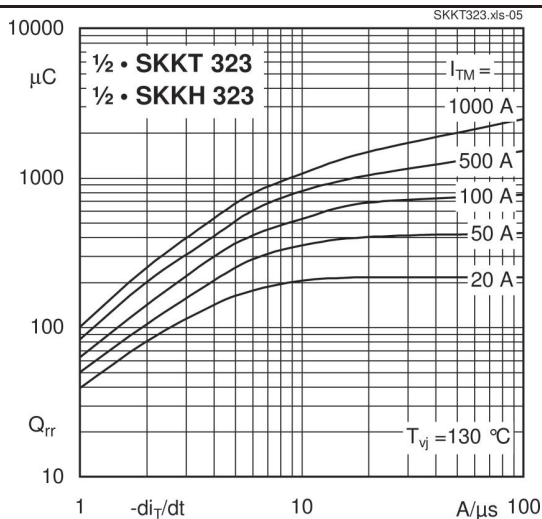


Fig. 5 Recovered charge vs. current decrease

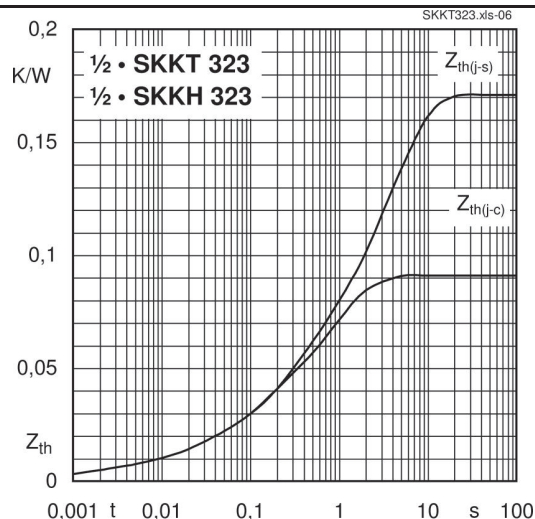


Fig. 6 Transient thermal impedance vs. time

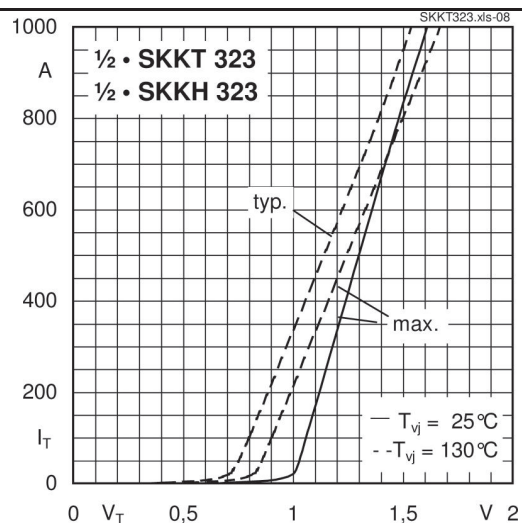


Fig. 7 On-state characteristics

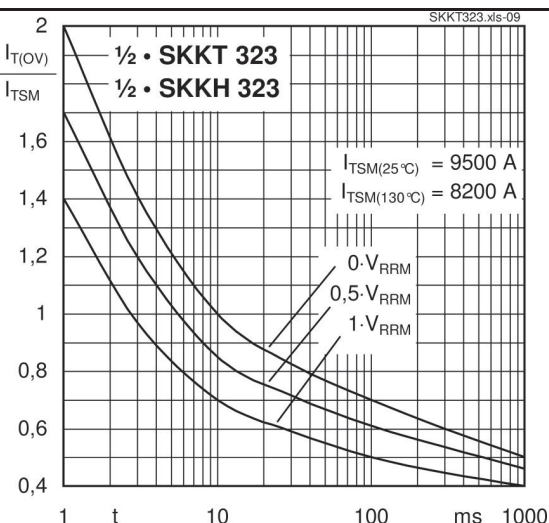


Fig. 8 Surge overload current vs. time

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