

SKCH28

Features

- Sturdy isolated metal baseplate
- Fast-on terminals with solder tips
- Suitable for wave soldering
- High surge current rating

Typical Applications

- DC power supplies
- DC motor controllers
- DC motor field controllers
- Controllable single phase rectifier



Symbol	ID=28A (full conduction) (Tc=89°C)						Units
	SKCH28/04	SKCH28/06	SKCH28/08	SKCH28/12	SKCH28/14	SKCH28/16	
VRRM, VDRM	400	600	800	1200	1400	1600	V
VRSM	500	700	900	1300	1500	1600	V

Electrical characteristics

Symbol	Conditions	Values	Units
ID	Tc=85°C	30	A
	Ta=45°C chassis	13	A
	Ta=45°C; P5A/100	15	A
	Ta=45°C; P13A/125	16	A
	Ta=45°C; P1A/120	23	A
ITSM, IFSM	Tvj=25°C, 10ms	320	A
I ² t	Tvj=125°C, 10ms	280	A
	Tvj=25°C; 8.3...10ms	510	A ² s
	Tvj=125°C; 8.3...10ms	390	A ² s
VT	Tvj=25°C, IT=75A	max.2.25	V
VT(TO)	Tvj=125°C	max.1	V
rT	Tvj=125°C	max.16	mΩ
IDD;IRD	Tvj=125°C VDD=VDR, VRD=VRRM	max.8	mA
tgd	Tvj=25°C, IG=1A diG/dt=1A/μs	1	μs
tgr	VD=0.67.VDRM	1	μs
(dv/dt)cr	Tvj=125°C	max.500	V/μs
(di/dt)cr	Tvj=125°C;f=50Hz	max.50	A/μs
tq	Tvj=125°C;typ.	80	μs
IH	Tvj=25°C;typ./max.	50/150	mA
IL	Tvj=25°C; RG=33Ω; typ./max.	100/300	mA
VGT	Tvj=25°C;d.c	min.2	V
IGT	Tvj=25°C;d.c	min.100	mA
VGD	Tvj=125°C;d.c	max.0.25	V
IGD	Tvj=125°C;d.c	max.3	mA
Rth(j-c)	per thyristor/diode	1.8	K/W
	total	0.45	K/W
Rth(c-s)	total	0.1	K/W
Rth(j-a)	total	15	K/W
Tvj		-40...+125	°C
Tstg		-40...+125	°C
Visol	a.c.50Hz; r.m.s; 1s/1min.	3600(3000)	V
Ms	case to heatsink	2	Nm
Mt		n.a.	Nm
m		66	g

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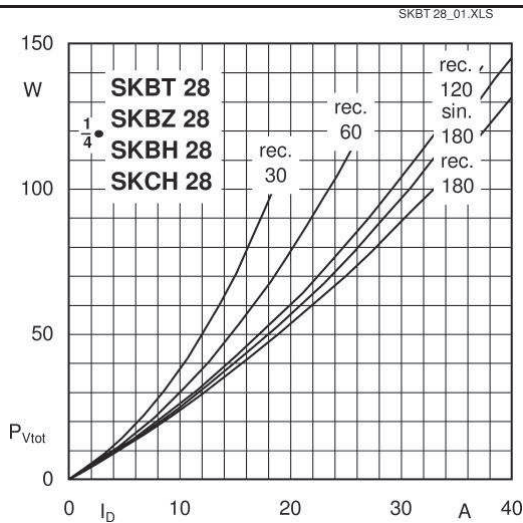


Fig. 1 Power dissipation vs. output current

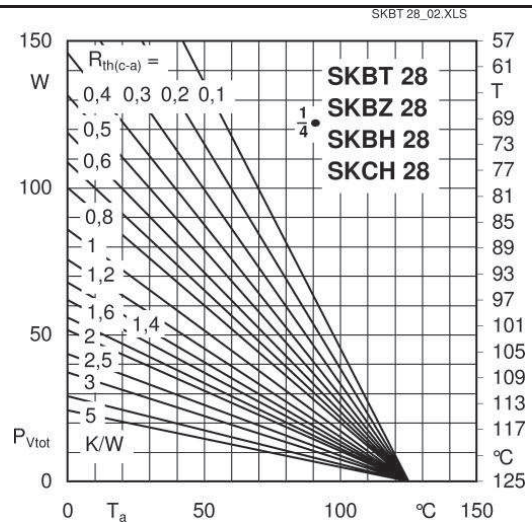


Fig. 2 Power dissipation vs. case temperature

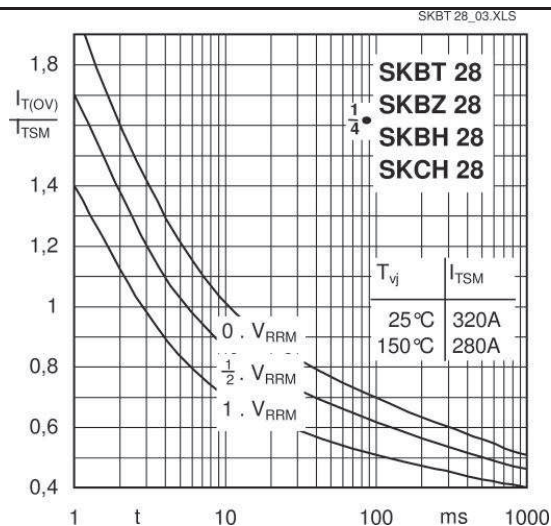


Fig. 5 Surge overload characteristics vs. time

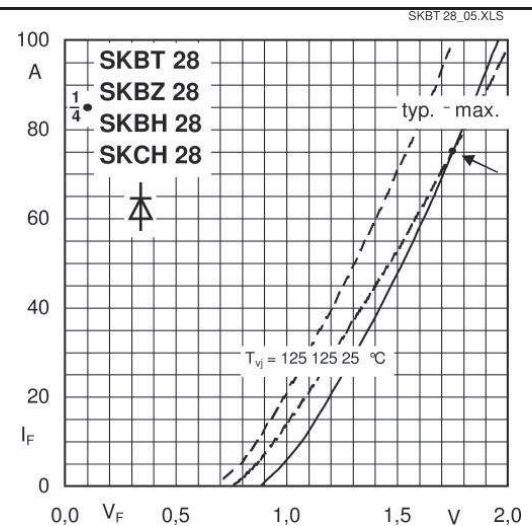


Fig. 9 Forward characteristics of a diode arm

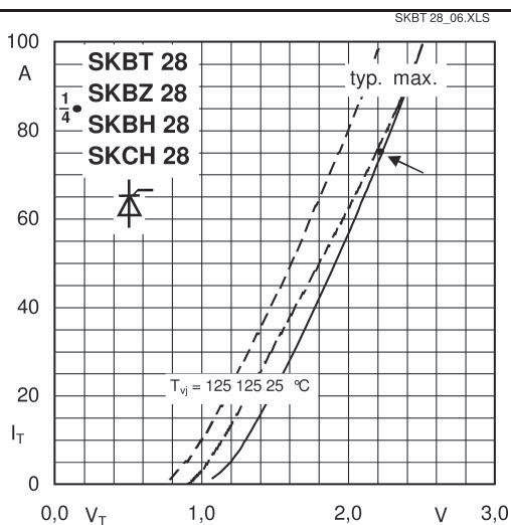


Fig. 10 On-state characteristics of a thyristor arm

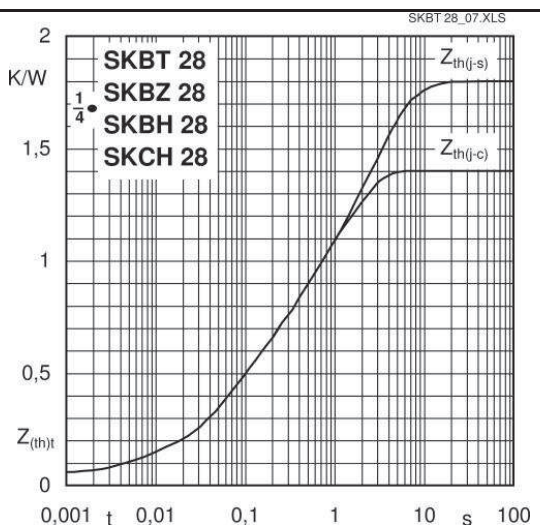


Fig. 12 Transient thermal impedance vs. time

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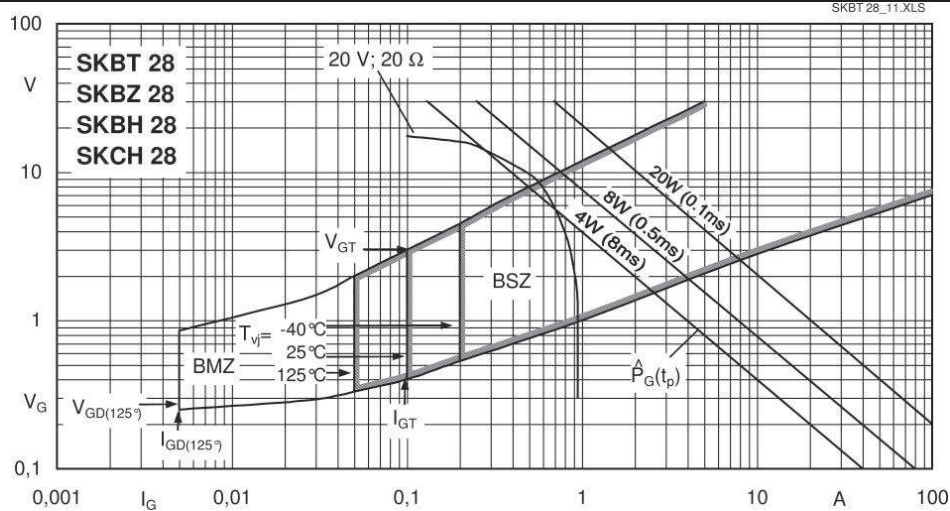
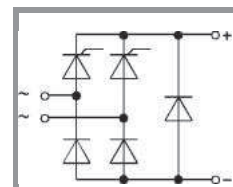
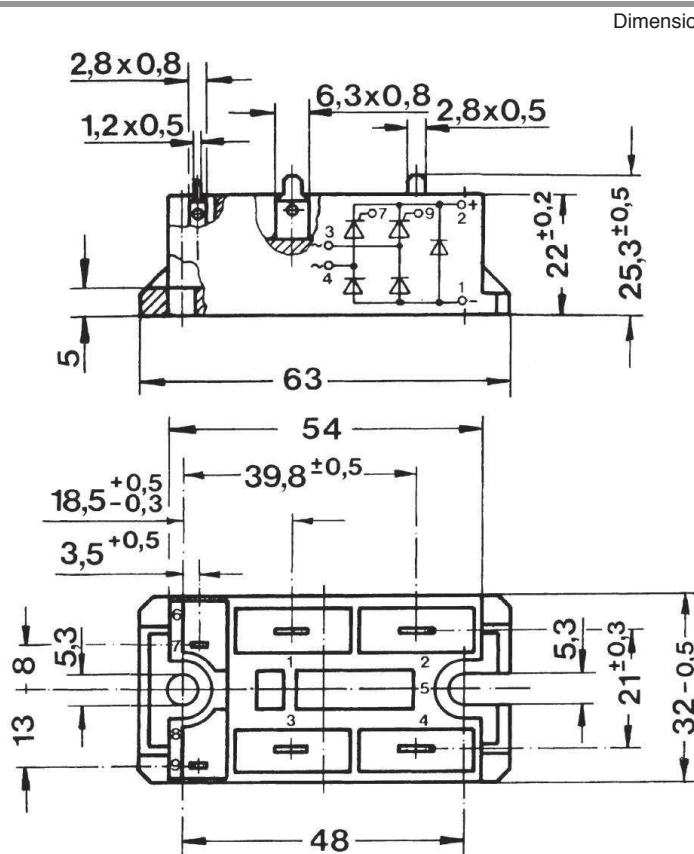


Fig. 11 Gate characteristics of a thyristor device



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