

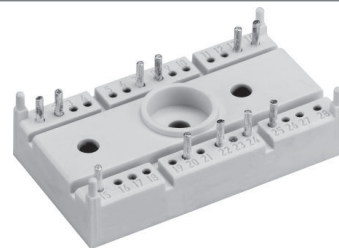
SK 45UT

Features

- Compact Design
- One screw mounting
- Glass passivated thyristor chips
- Up to 1600V reverse voltage
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic(DBC)

Typical Applications

- Soft starters
- Light control (studios, theaters...)
- Temperature control



Symbol	IRMS=47A (full conduction) (Ts=85°C)			Units
	SK 45UT08	SK 45UT12	SK 45UT08	
VRRM, VDRM	800	1200	1600	V
VRSM	900	1300	1700	V

Electrical characteristics

Symbol	Conditions	Values	Units
IRMS	W1C; sin.180°; Ts=100°C	33	A
	W1C; sin.180°; Ts=85°C	47	A
ITSM	Tvj=25°C; 10ms	450	A
	Tvj=125°C; 10ms	380	A
I²t	Tvj=25°C; 8.3...10ms	1000	A²s
	Tvj=125°C; 8.3...10ms	720	A²s
VT	Tvj=25°C, IT=75A	max.1.9	V
VT(TO)	Tvj=125°C	max.1	V
rT	Tvj=125°C	max.10	mΩ
IDD;IRD	Tvj=125°C, VRD=VRRM	max.10	mA
tgd	Tvj=25°C, Ig=1A di/dt=1A/μs	1	μs
tgr	VD=0.67*VDRM	2	μs
(dv/dt)cr	Tvj=125°C	1000	V/μs
(di/dt)cr	Tvj=125°C; f=50...60Hz	50	Vμs
tq	Tvj=125°C; typ.	80	μs
IH	Tvj=25°C; typ./max.	80/150	mA
IL	Tvj=25°C; RG=33Ω; typ./max.	150/300	mA
VGT	Tvj=25°C; d.c	min.3	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-s)	cont.per thyristor	1.2	K/W
	sin 180° per thyristor	1.24	K/W
Rth(j-s)	cont.per W1C	0.6	K/W
	sin 180° per W1C	0.62	K/W
Tvj		-40...+125	°C
Tstg		-40...+125	°C
Tsolder	terminals, 10s	260	°C
Visol	a.c.50Hz; r.m.s; 1s/1min.	3000/2500	V~
Ms	Mounting torque to heatsink	2.5	Nm
Mt			Nm
m		30	g

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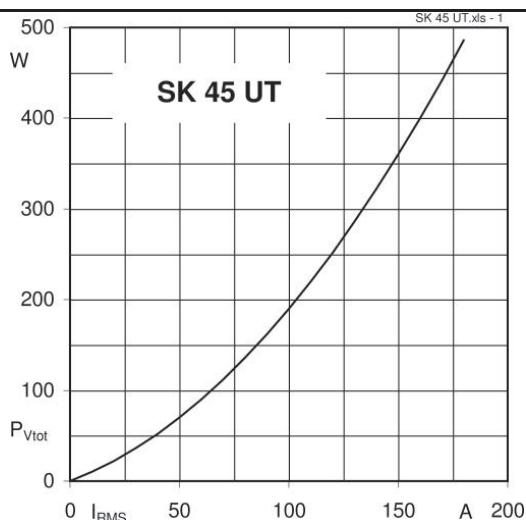


Fig. 1 Power dissipation per phase vs. r.m.s. current

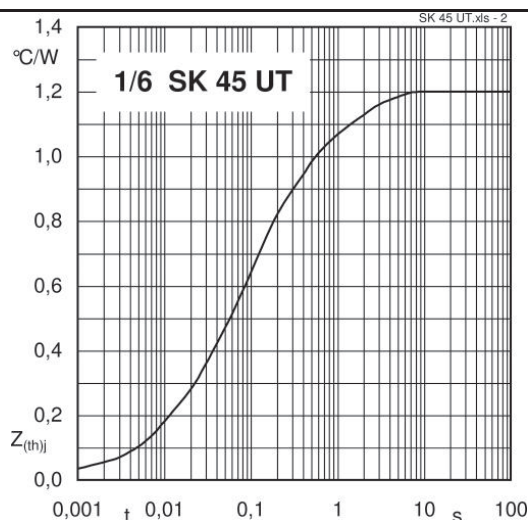


Fig. 2 Transient thermal impedance vs. time

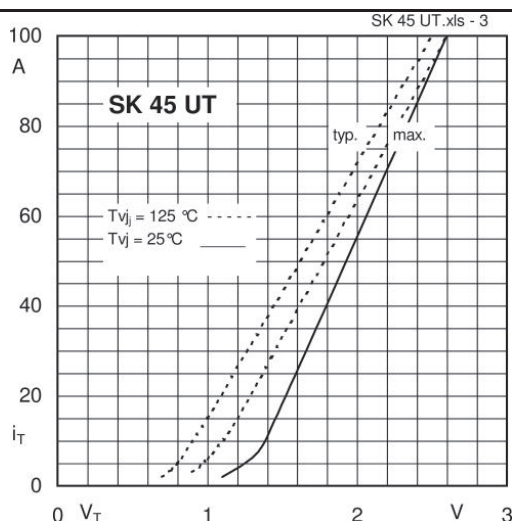


Fig. 3 On-state characteristics

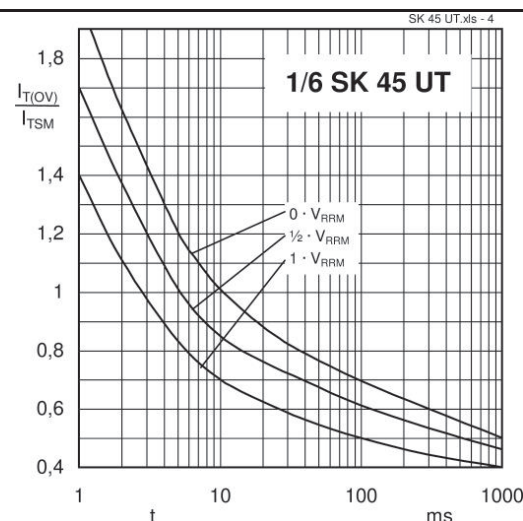


Fig. 4 Surge overload current vs. time

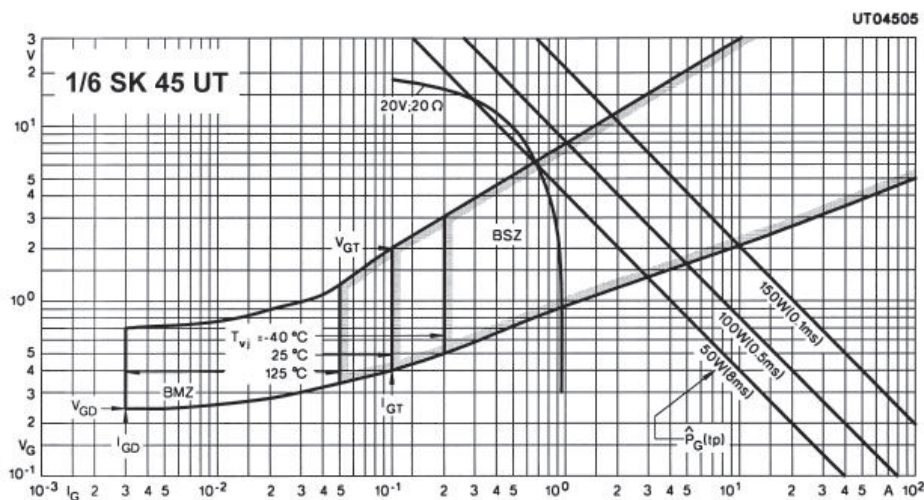
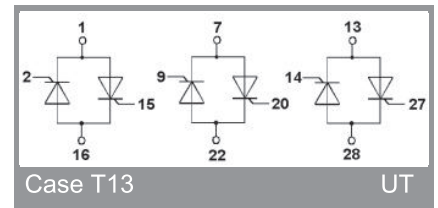
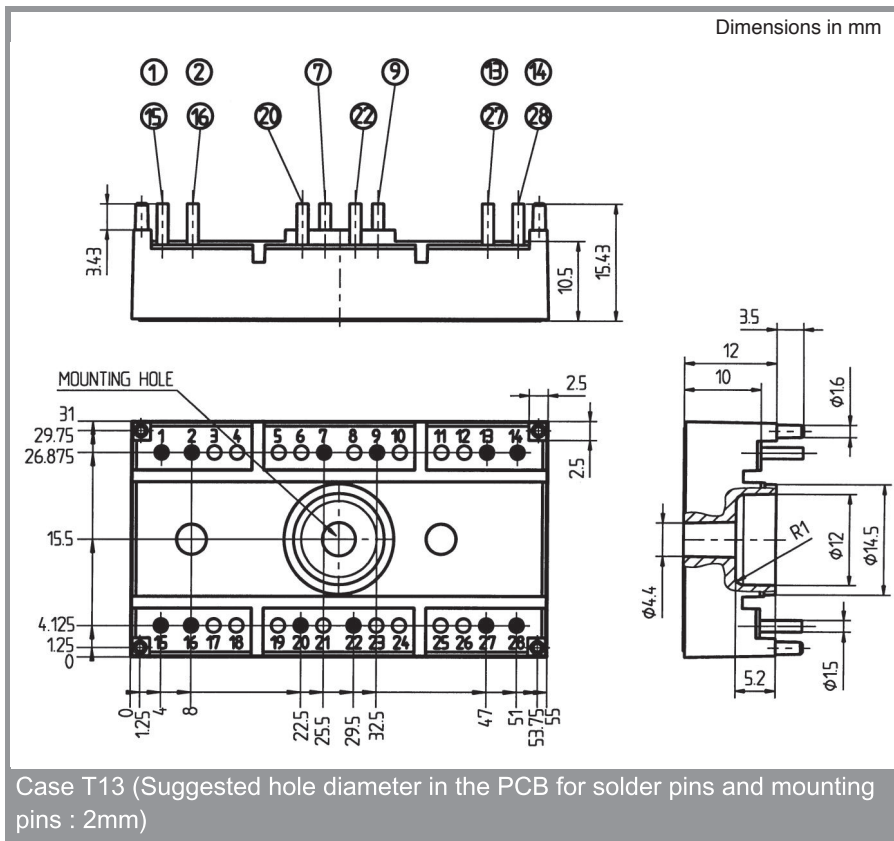


Fig. 5 Gate trigger characteristics

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