

SKKT 15, SKKH 15



SEMIPACK[®] 0

Thyristor / Diode Modules

SKKT 15

SKKH 15

Features

- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63 532

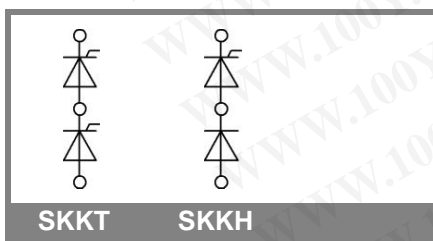
Typical Applications

- DC motor control (e. g. for machine tools)
- Temperature control (e. g. for ovens, chemical processes)
- Professional light dimming (studios, theaters)

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{TRMS} = 24$ A (maximum value for continuous operation) $I_{TAV} = 15$ A (sin. 180; $T_c = 75$ °C)	
700	600	SKKT 15/06E	SKKH 15/06E
900	800	SKKT 15/08E	SKKH 15/08E
1300	1200	SKKT 15/12E	SKKH 15/12E
1500	1400	SKKT 15/14E	SKKH 15/14E
1700	1600	SKKT 15/16E	SKKH 15/16E

Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85$ (100) °C;	13,5 (9,5)	A
I_D	P13A/100; $T_a = 45$ °C; B2 / B6	14 / 17	A
I_{RMS}	P13A/100; $T_a = 45$ °C; W1 / W3	21 / 3 x 12	A
I_{TSM}	$T_{vj} = 25$ °C; 10 ms	320	A
	$T_{vj} = 125$ °C; 10 ms	280	A
i^2t	$T_{vj} = 25$ °C; 8,3 ... 10 ms	510	A ² s
	$T_{vj} = 125$ °C; 8,3 ... 10 ms	390	A ² s
V_T	$T_{vj} = 25$ °C; $I_T = 75$ A	max. 2,45	V
$V_{T(TO)}$	$T_{vj} = 125$ °C	max. 1,1	V
r_T	$T_{vj} = 125$ °C	max. 20	mΩ
I_{DD}, I_{RD}	$T_{vj} = 125$ °C; $V_{RD} = V_{RRM}, V_{DD} = V_{DRM}$	max. 8	mA
t_{gd}	$T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/μs	1	μs
t_{gr}	$V_D = 0,67 * V_{DRM}$	1	μs
$(di/dt)_{cr}$	$T_{vj} = 125$ °C	max. 100	A/μs
$(dv/dt)_{cr}$	$T_{vj} = 125$ °C	max. 1000	V/μs
t_q	$T_{vj} = 125$ °C	80	μs
I_H	$T_{vj} = 25$ °C; typ. / max.	80 / 150	mA
I_L	$T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max.	150 / 300	mA
V_{GT}	$T_{vj} = 25$ °C; d.c.	min. 3	V
I_{GT}	$T_{vj} = 25$ °C; d.c.	min. 100	mA
V_{GD}	$T_{vj} = 125$ °C; d.c.	max. 0,25	V
I_{GD}	$T_{vj} = 125$ °C; d.c.	max. 5	mA
$R_{th(j-c)}$	cont.; per thyristor / per module	1,6 / 0,8	K/W
$R_{th(j-c)}$	sin. 180; per thyristor / per module	1,7 / 0,9	K/W
$R_{th(j-c)}$	rec. 120; per thyristor / per module	1,8 / 0,9	K/W
$R_{th(c-s)}$	per thyristor / module	0,2 / 0,1	K/W
T_{vj}		- 40 ... + 125	°C
T_{stg}		- 40 ... + 125	°C
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3600 / 3000	V~
M_s	to heatsink	1,5 ± 15 %	Nm
a		5 * 9,81	m/s ²
m	approx.	50	g
Case	SKKT	A 1	
	SKKH	A 2	

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



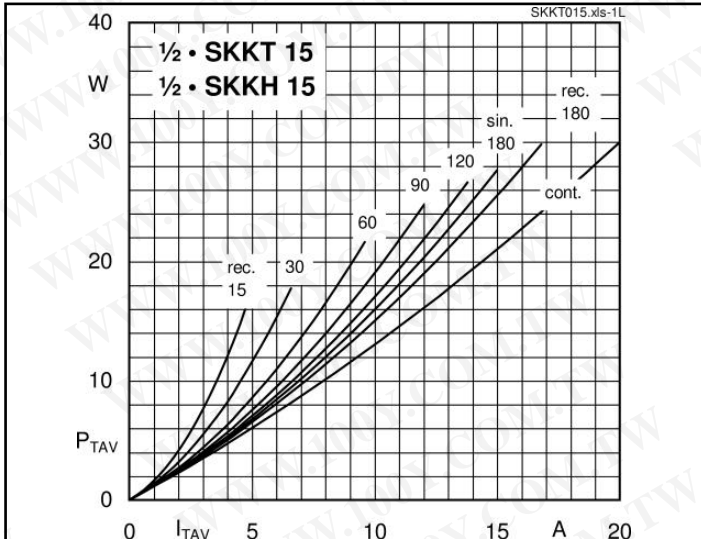


Fig. 1L Power dissipation per thyristor vs. on-state current

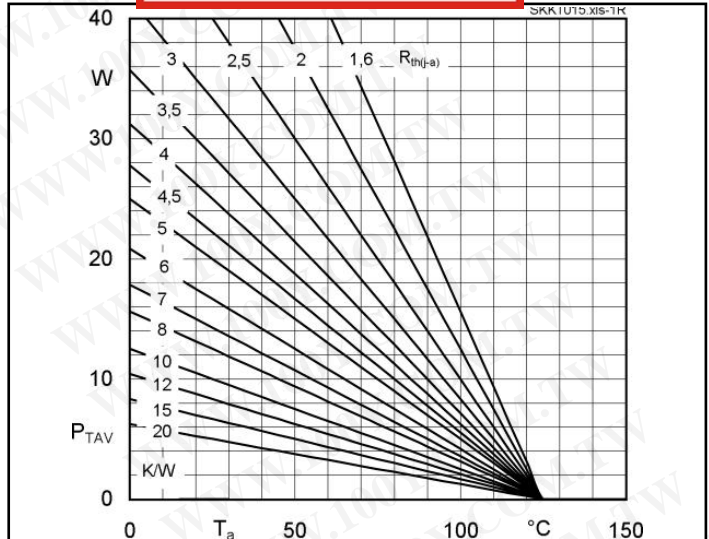


Fig. 1R Power dissipation per thyristor vs. ambient temp.

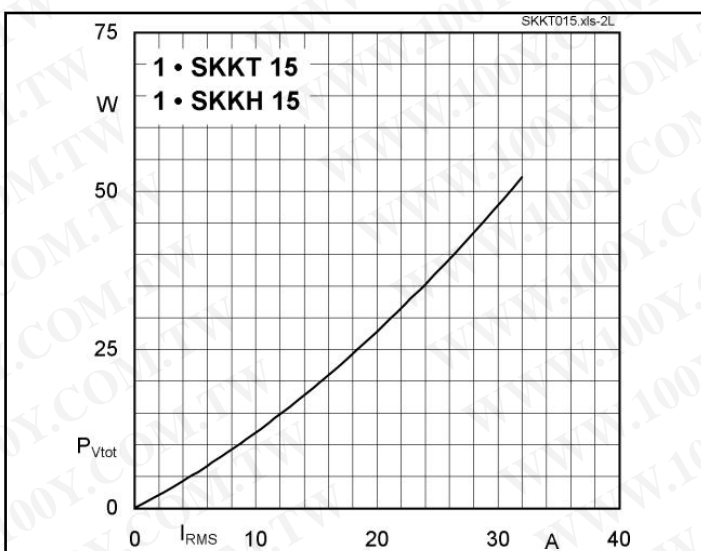


Fig. 2L Power dissipation per module vs. rms current

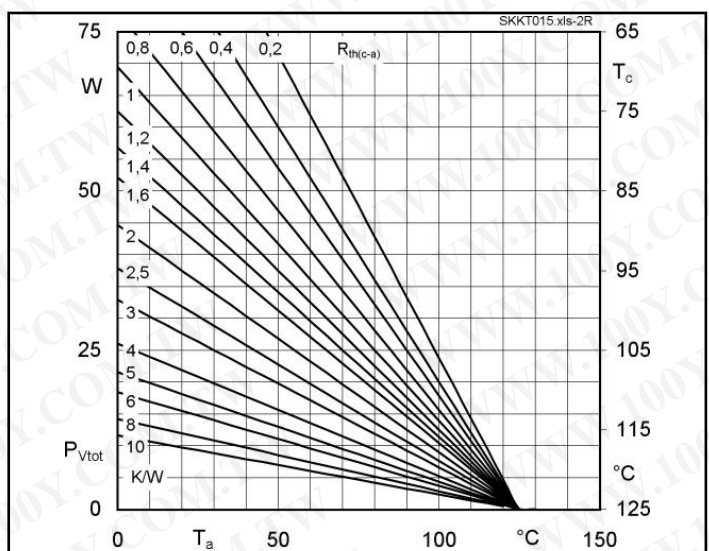


Fig. 2R Power dissipation per module vs. case temp.

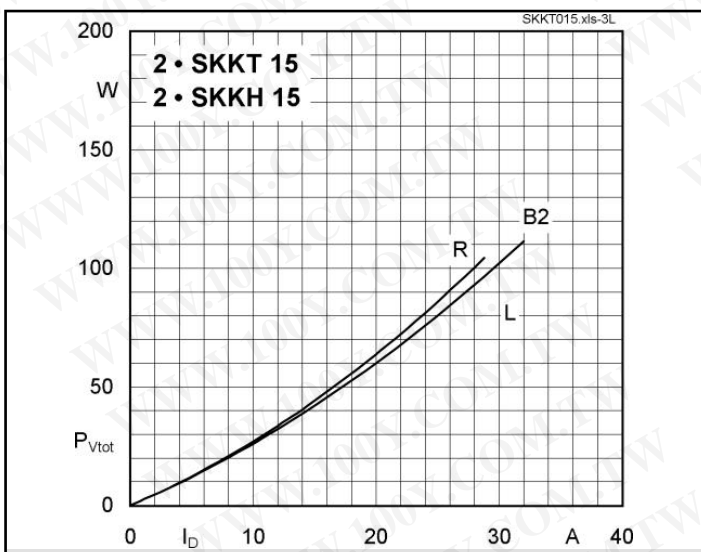


Fig. 3L Power dissipation of two modules vs. direct current

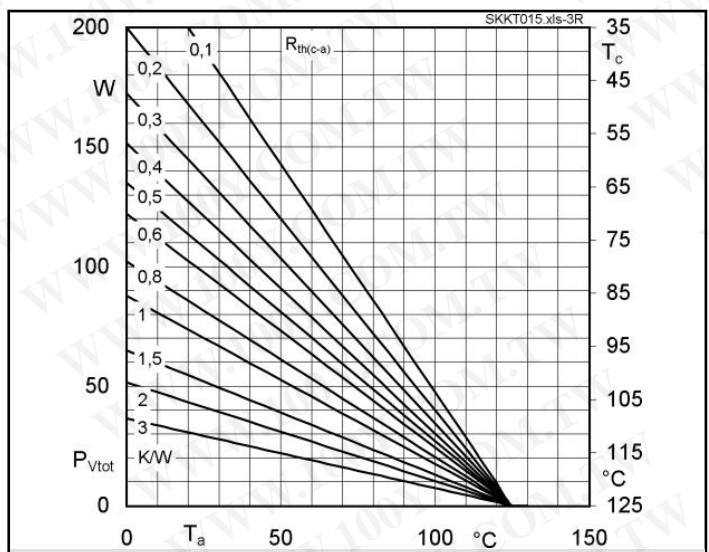
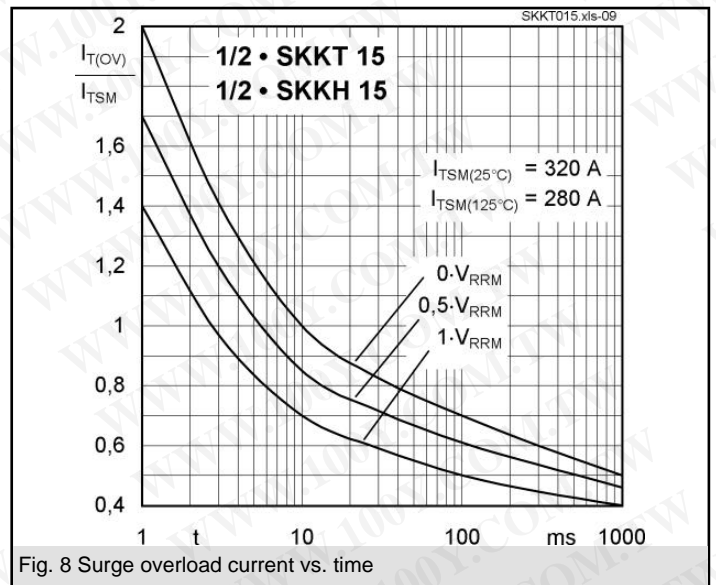
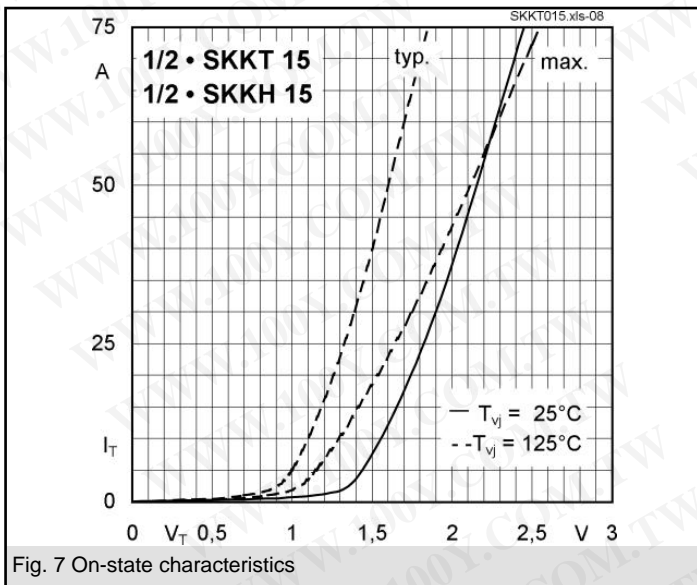
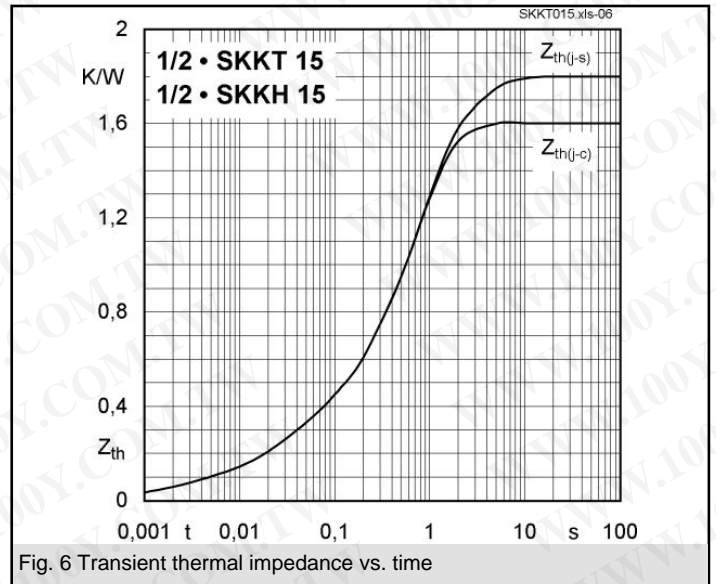
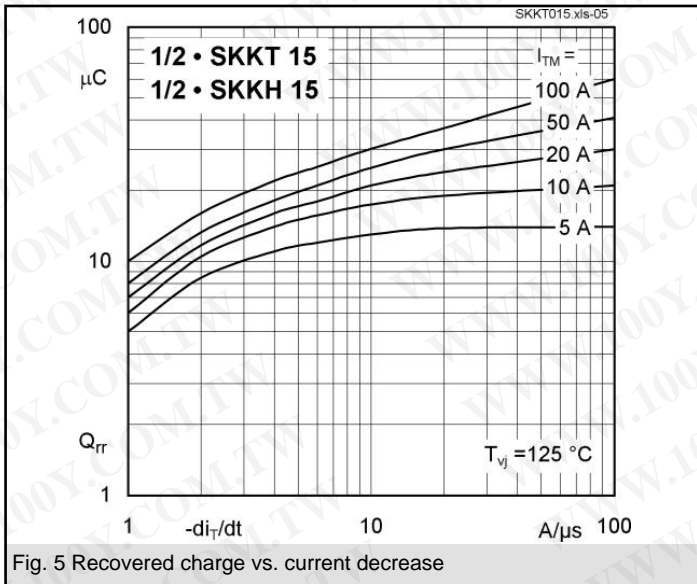
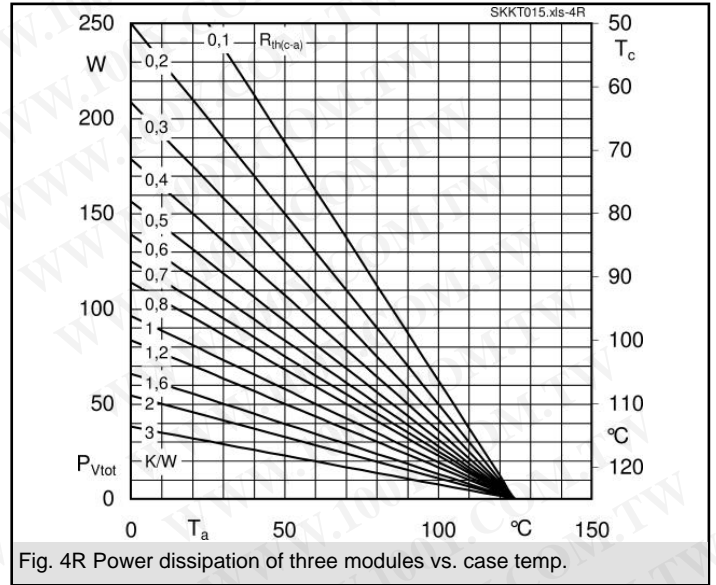
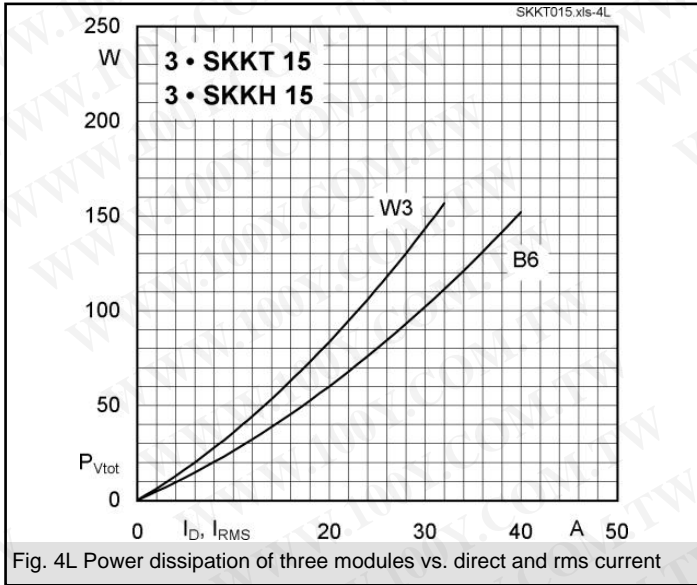


Fig. 3R Power dissipation of two modules vs. case temp.

SKKT 15, SKKH 15



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787

[Http://www.100y.com.tw](http://www.100y.com.tw)

21-10-2004 CAS

© by SEMIKRON

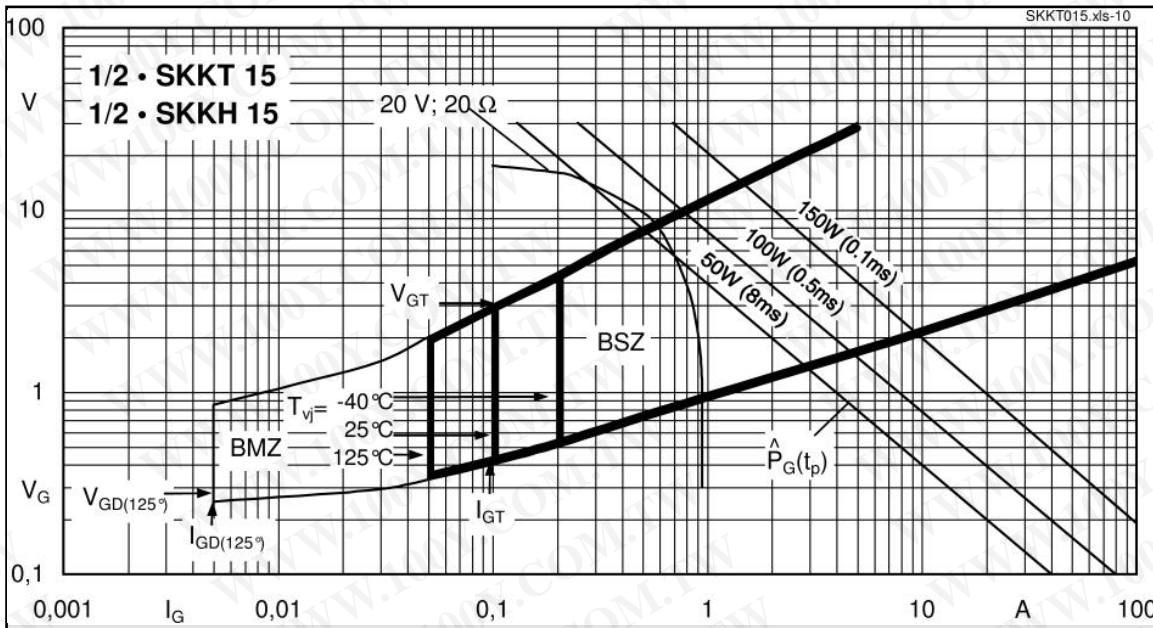
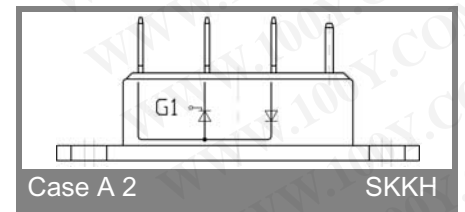
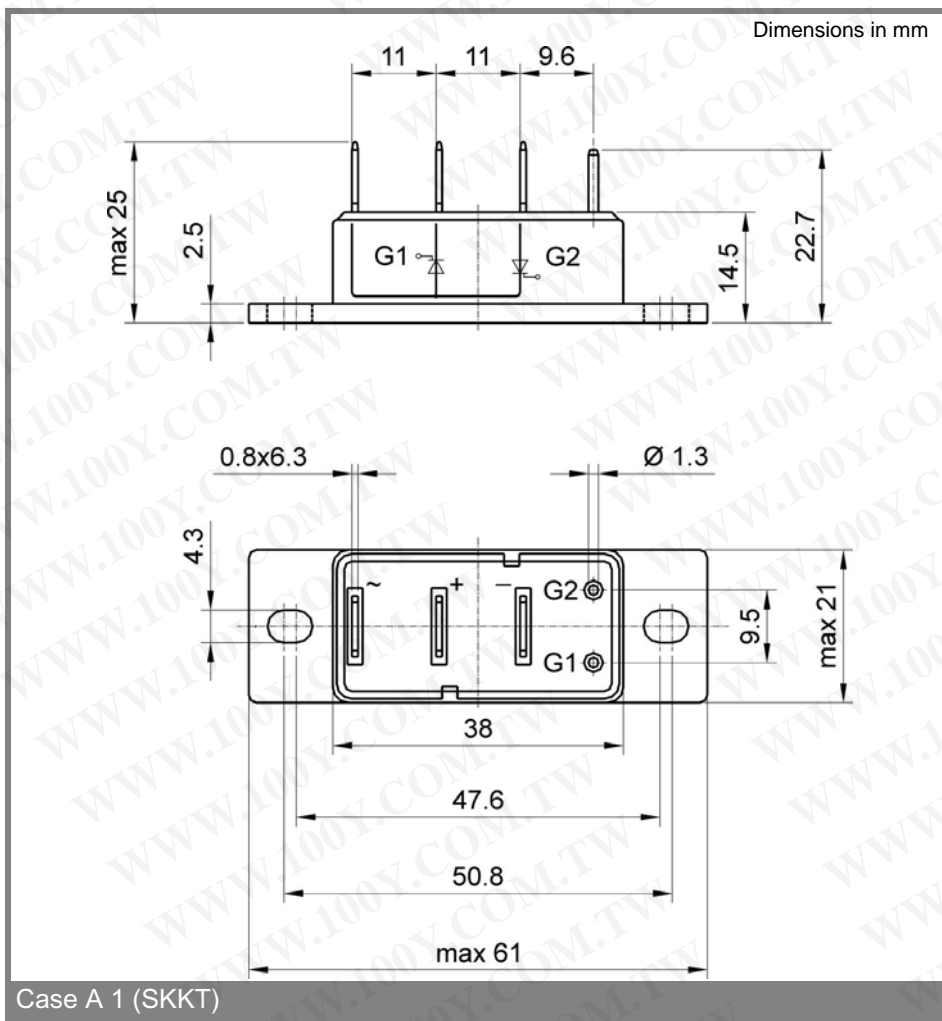


Fig. 9 Gate trigger characteristics



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

This technical information specifies semiconductor devices but promises no characteristics. No warranty or guarantee expressed or implied is made regarding delivery, performance or suitability.