SKKT 132, SKKH 132, SKNH 132

SEMIPACK® 2

Thyristor / Diode Modules

SKKT 132
SKKH 132
SKNH 132

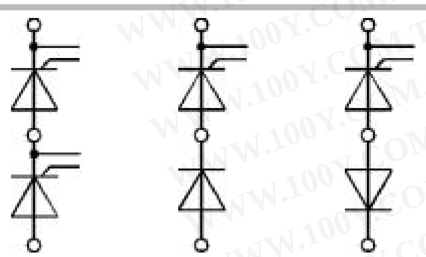
Features

- 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)
- DC braking of AC motors (SKNH)

1) SKNH 132 available on request
2) See the assembly instructions



V_{RSM} V	V_{RRM}, V_{DRM} V	I_{TRMS} = 220 A (maximum value for I_{TAV} = 130 A (sin. 180;	
900	800	SKKT 132/08E	SKKH 132/08
1300	1200	SKKT 132/12E	SKKH 132/12
1500	1400	SKKT 132/14E	SKKH 132/14
1700	1600	SKKT 132/16E	SKKH 132/16
1900	1800	SKKT 132/18E	SKKH 132/18

Symbol	Conditions
I_{TAV}	sin. 180; T_c = 85 (100) °C
I_D	P3/180; T_a = 45 °C; B2 / B6
	P3/180F; T_a = 35 °C; B2 / B6
I_{RMS}	P3/180F; T_a = 35 °C; W1 / W3
I_{TSM}	T_{vj} = 25 °C; 10 ms
	T_{vj} = 125 °C; 10 ms
i²t	T_{vj} = 25 °C; 8,3 ... 10 ms
	T_{vj} = 125 °C; 8,3 ... 10 ms
V_T	T_{vj} = 25 °C; I_T = 500 A
$V_{T(TO)}$	T_{vj} = 125 °C
r_T	T_{vj} = 125 °C
I_{DD}; I_{RD}	T_{vj} = 125 °C; V_{RD} = V_{RRM}; V_{DD} = V_{DRM}
t_{gd}	T_{vj} = 25 °C; I_G = 1 A; di_G/dt = 1 A/µs
t_{gr}	V_D = 0,67 * V_{DRM}
$(di/dt)_{cr}$	T_{vj} = 125 °C
$(dv/dt)_{cr}$	T_{vj} = 125 °C
t_q	T_{vj} = 125 °C
I_H	T_{vj} = 25 °C; typ. / max.
I_L	T_{vj} = 25 °C; R_G = 33 Ω; typ. / max.
V_{GT}	T_{vj} = 25 °C; d.c.
I_{GT}	T_{vj} = 25 °C; d.c.
V_{GD}	T_{vj} = 125 °C; d.c.
I_{GD}	T_{vj} = 125 °C; d.c.
$R_{th(j-c)}$	cont.; per thyristor / per module
$R_{th(j-c)}$	sin. 180; per thyristor / per module
$R_{th(j-c)}$	rec. 120; per thyristor / per module
$R_{th(c-s)}$	per thyristor / per module
T_{vj}	
T_{stg}	
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min.
M_s	a. c. 50 Hz; r.m.s.; 1 s / 1 min. for SKK ...H4
M_s	to heatsink
M_t	to terminal
a	
m	approx.
Case	SKKT
	SKKH
	SKNH

Diagrams

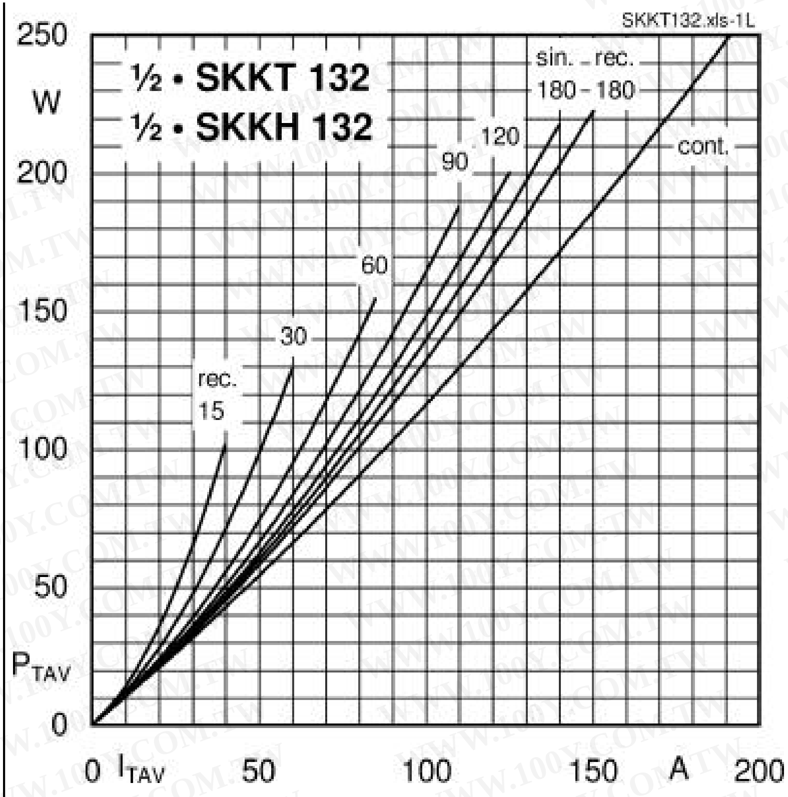


Fig. 1L Power dissipation per thyristor vs. on-state current

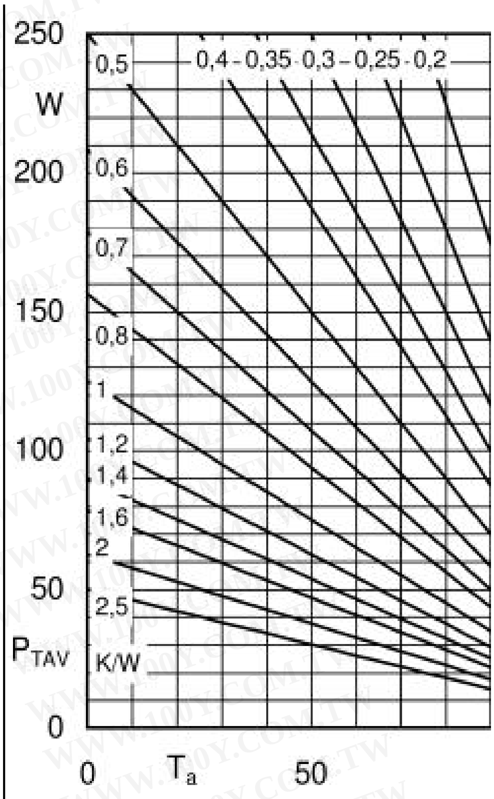


Fig. 1R Power dissipation per thyristor vs. am

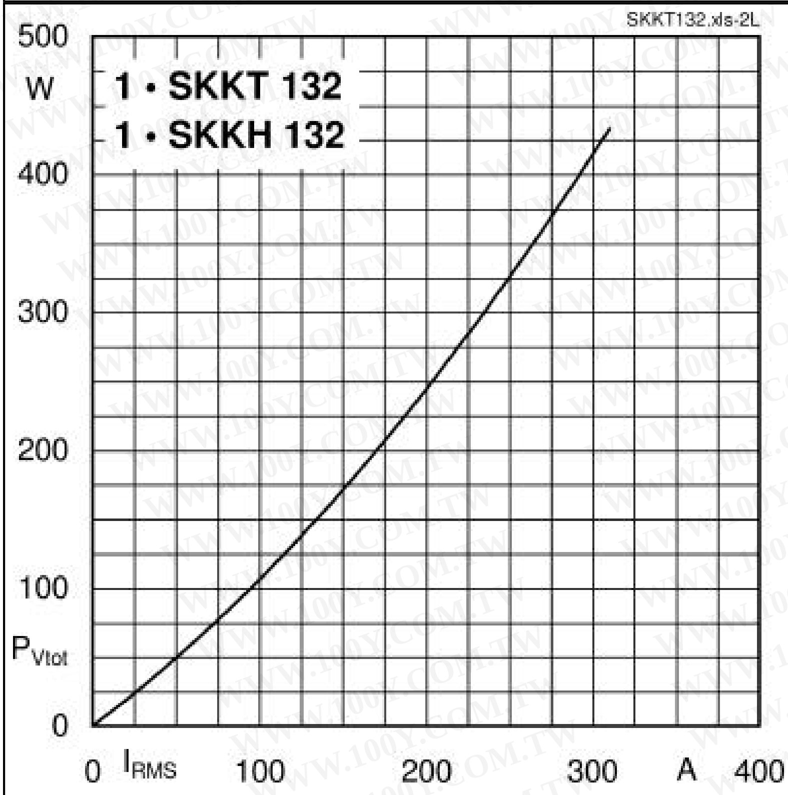


Fig. 2L Power dissipation per module vs. rms current

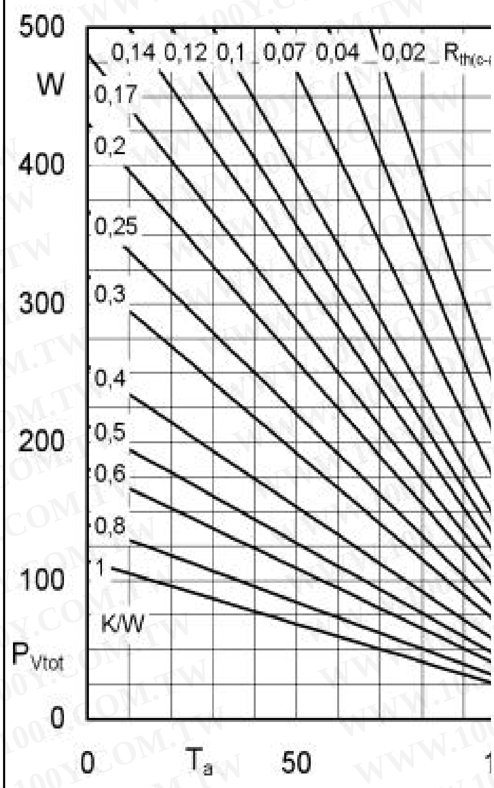


Fig. 2R Power dissipation per module vs. cas

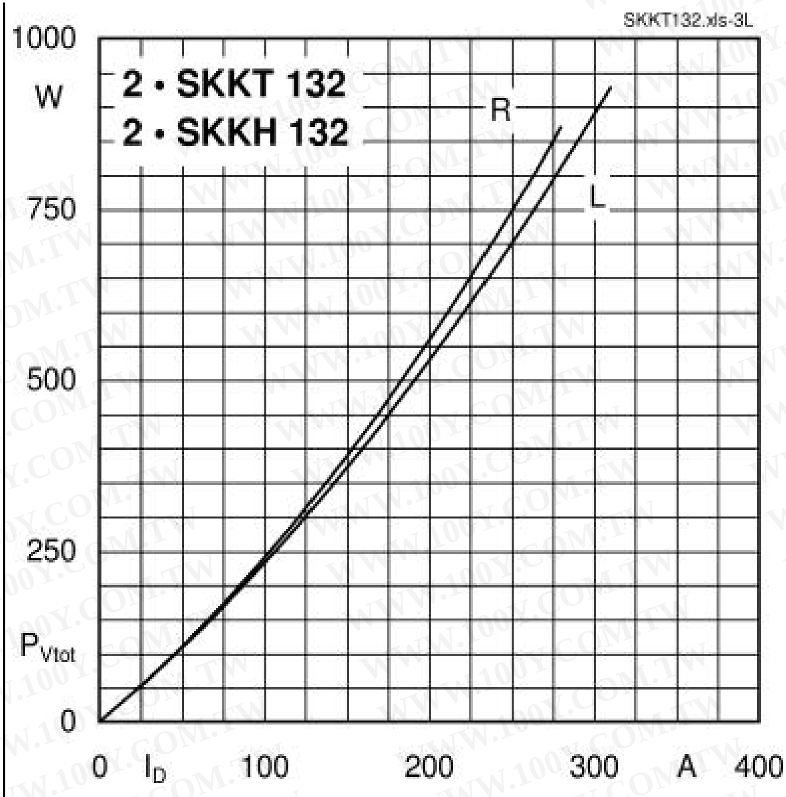


Fig. 3L Power dissipation of two modules vs. direct current

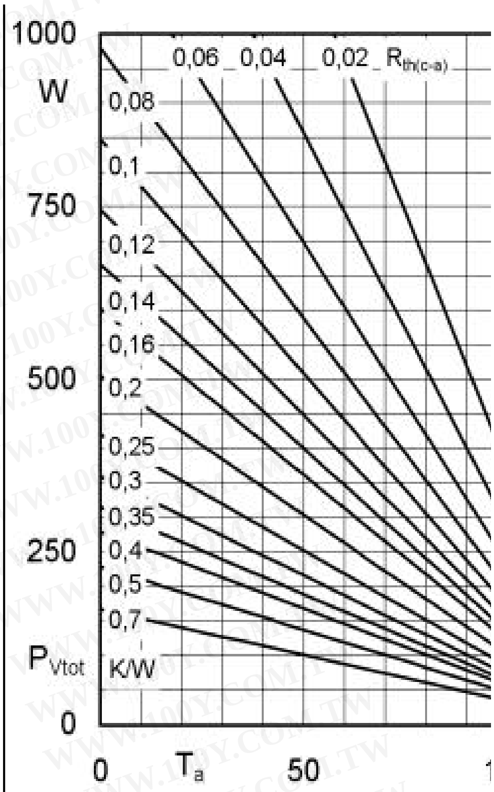


Fig. 3R Power dissipation of two modules vs.

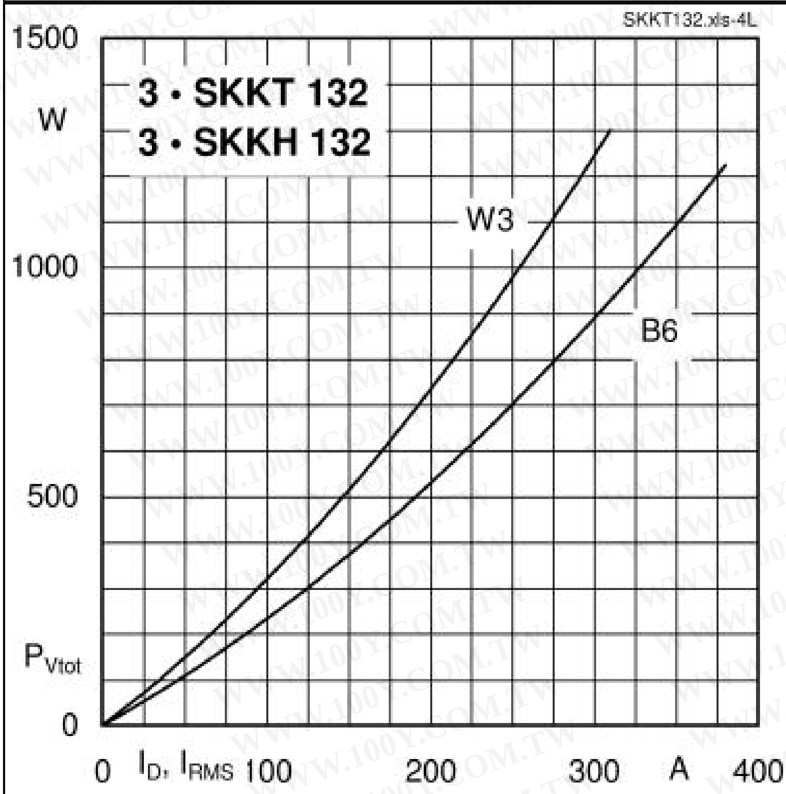


Fig. 4L Power dissipation of three modules vs. direct and rms current

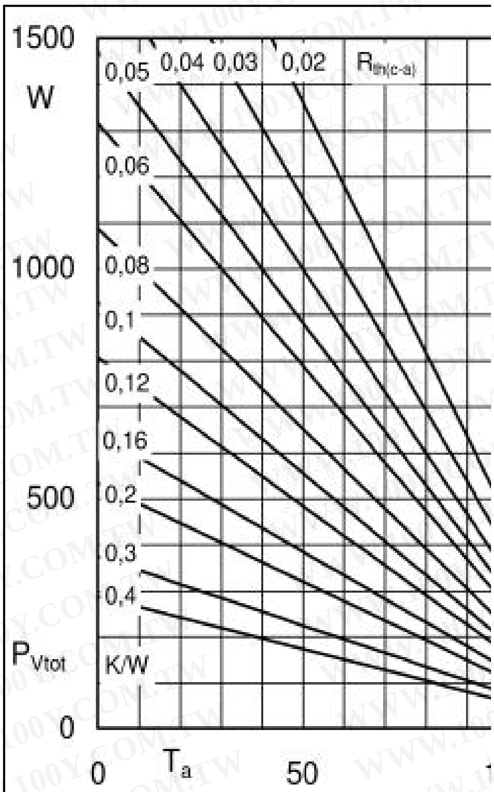


Fig. 4R Power dissipation of three modules v

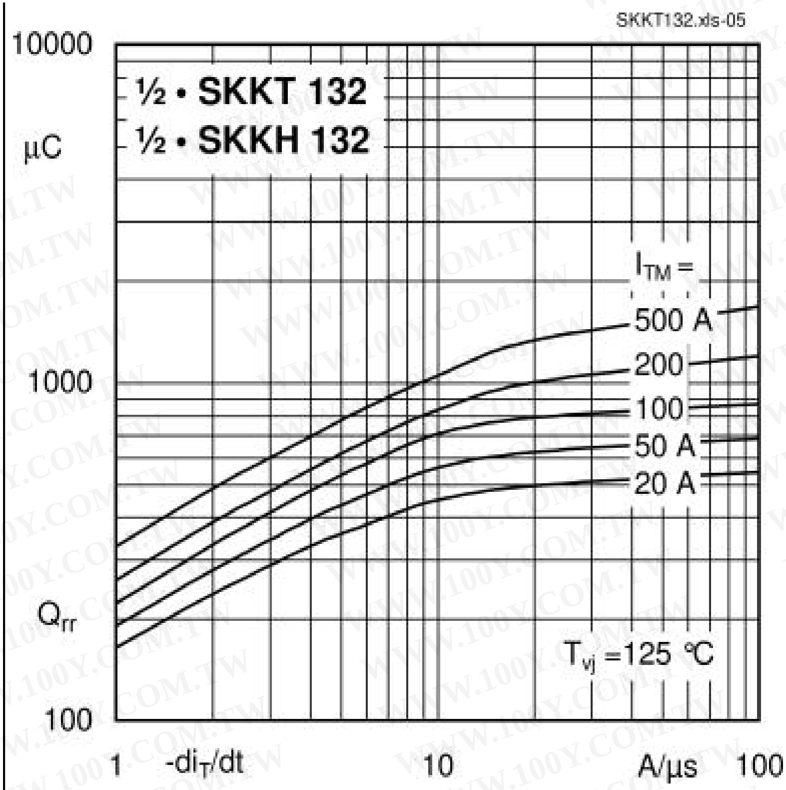


Fig. 5 Recovered charge vs. current decrease

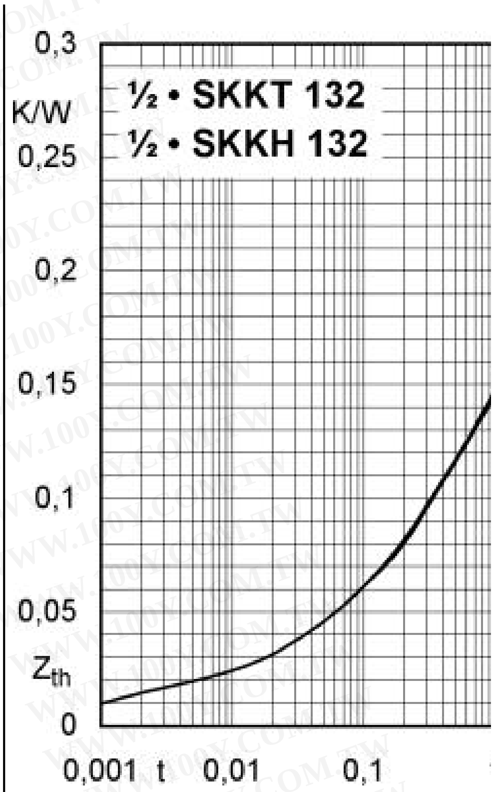


Fig. 6 Transient thermal impedance vs. time

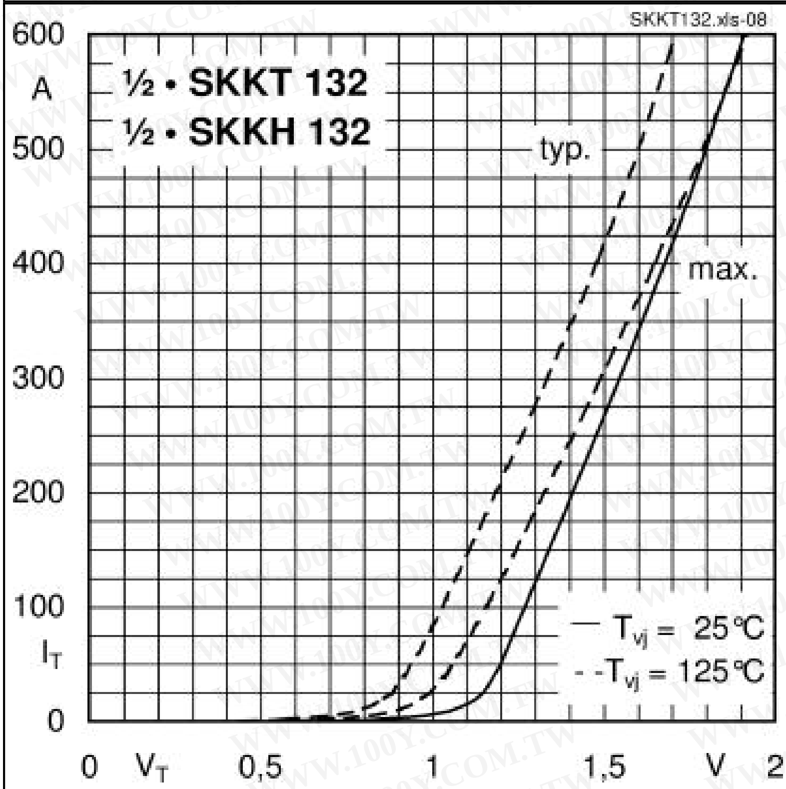


Fig. 7 On-state characteristics

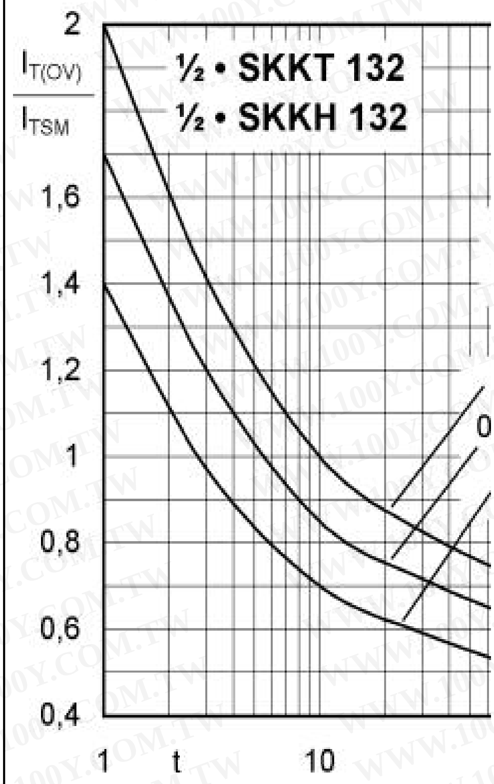


Fig. 8 Surge overload current vs. time

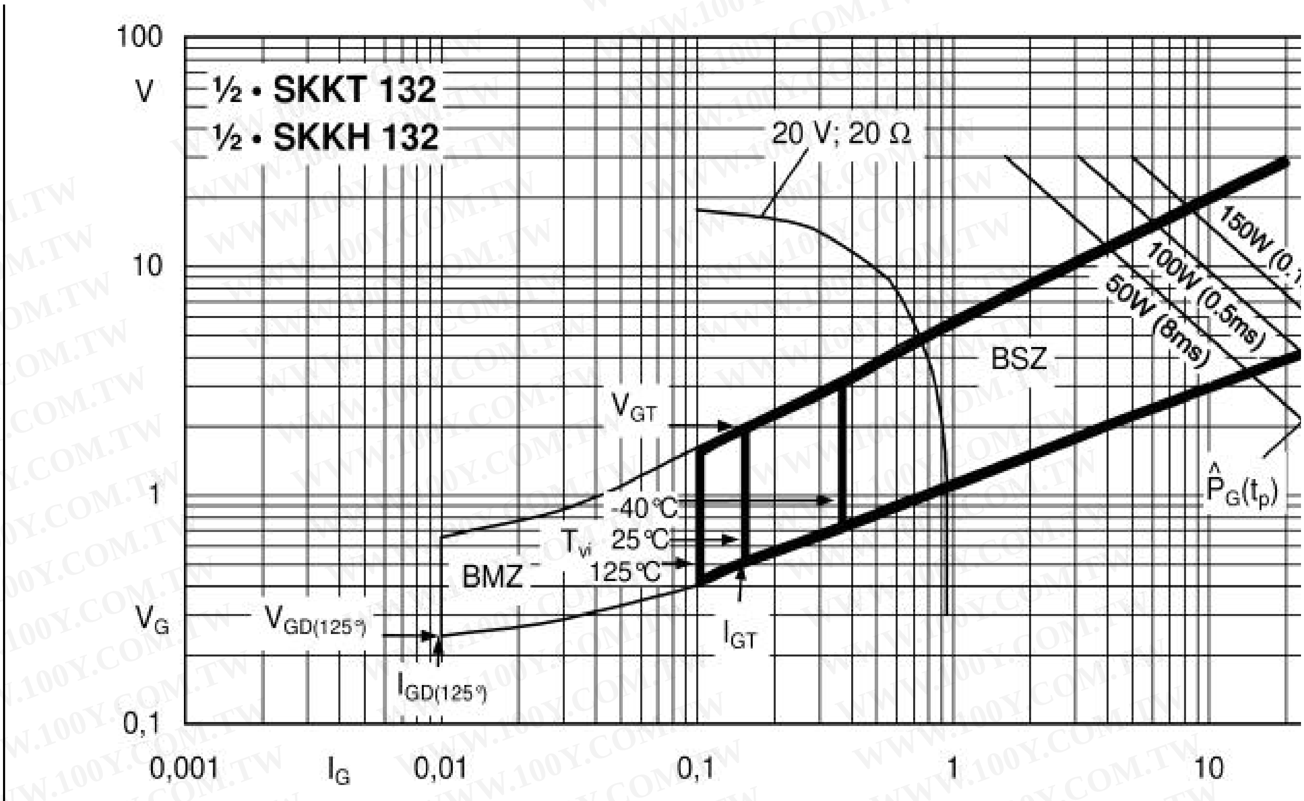


Fig. 9 Gate trigger characteristics

Cases / Circuits