

SKKT 26, SKKH 26



SEMIPACK[®] 1

Thyristor / Diode Modules

SKKT 26

SKKH 26

Features

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

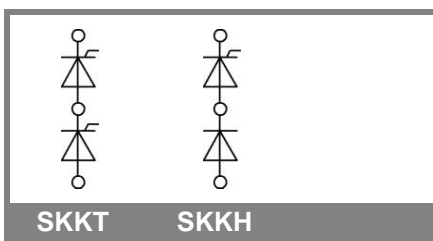
Typical Applications

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

1) See the assembly instructions

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{TRMS} = 50$ A (maximum value for continuous operation) $I_{TAV} = 26$ A (sin. 180; $T_c = 84$ °C)	
500	400		SKKH 26/04D
700	600	SKKT 26/06E	SKKH 26/06D
900	800	SKKT 26/08E	SKKH 26/08D
1300	1200	SKKT 26/12E	SKKH 26/12E
1500	1400	SKKT 26/14E	SKKH 26/14E
1700	1600	SKKT 26/16E	SKKH 26/16E
1900	1800	SKKT 26/18E	

Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85$ (100) °C;	25 (18)	A
I_D	P3/180; $T_a = 45$ °C; B2 / B6	38 / 50	A
	P3/180F; $T_a = 35$ °C; B2 / B6	60 / 77	A
I_{RMS}	P3/180; $T_a = 45$ °C; W1 / W3	52 / 3 x 37	A
I_{TSM}	$T_{vj} = 25$ °C; 10 ms	550	A
	$T_{vj} = 125$ °C; 10 ms	480	A
i^2t	$T_{vj} = 25$ °C; 8,3 ... 10 ms	1500	A ² s
	$T_{vj} = 125$ °C; 8,3 ... 10 ms	1150	A ² s
V_T	$T_{vj} = 25$ °C; $I_T = 75$ A	max. 1,8	V
$V_{T(TO)}$	$T_{vj} = 125$ °C	max. 0,9	V
r_T	$T_{vj} = 125$ °C	max. 12	mΩ
I_{DD}, I_{RD}	$T_{vj} = 125$ °C; $V_{RD} = V_{RRM}, V_{DD} = V_{DRM}$	max. 10	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. 150	A/μs
$(dv/dt)_{cr}$	$T_{vj} = 125$ °C; SKK ...D / SKK ...E	max. 500 / 1000	V/μs
t_q	$T_{vj} = 125$ °C,	80	μs
I_H	$T_{vj} = 25$ °C; typ. / max.	100 / 200	mA
I_L	$T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max.	250 / 400	mA
V_{GT}	$T_{vj} = 25$ °C; d.c.	min. 3	V
I_{GT}	$T_{vj} = 25$ °C; d.c.	min. 150	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	0,9 / 0,45	K/W
$R_{th(j-c)}$	sin. 180; per thyristor / per module	0,95 / 0,48	K/W
$R_{th(j-c)}$	rec. 120; per thyristor / per module	1 / 0,5	K/W
$R_{th(c-s)}$	per thyristor / per 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	5 ± 15 % ¹⁾	Nm
M_t	to terminals	3 ± 15 %	Nm
a		$5 * 9,81$	m/s ²
m	approx.	95	g
Case	SKKT	A 5	
	SKKH	A 6	



SKKT

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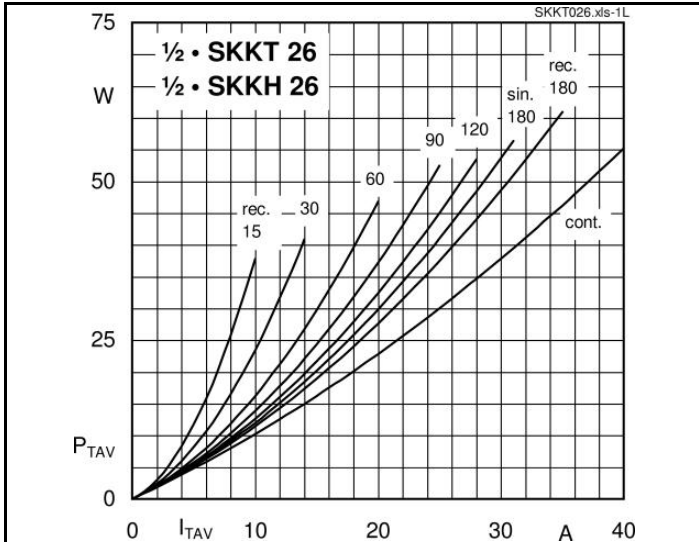


Fig. 1L Power dissipation per thyristor vs. on-state current

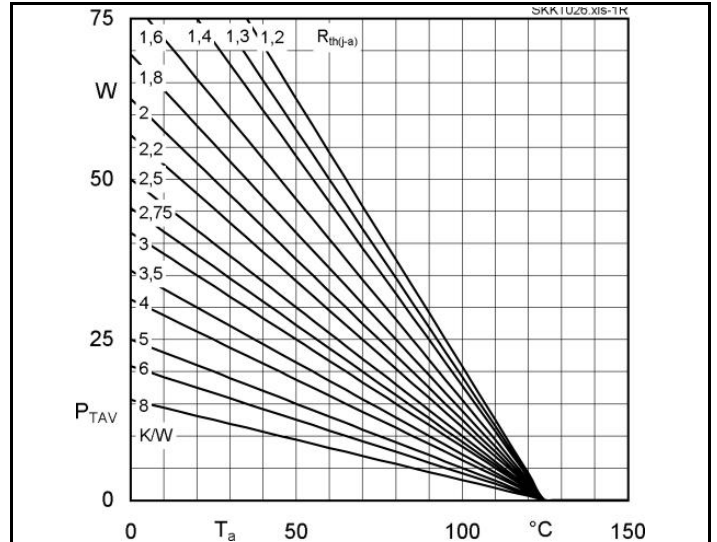


Fig. 1R Power dissipation per thyristor vs. ambient temp.

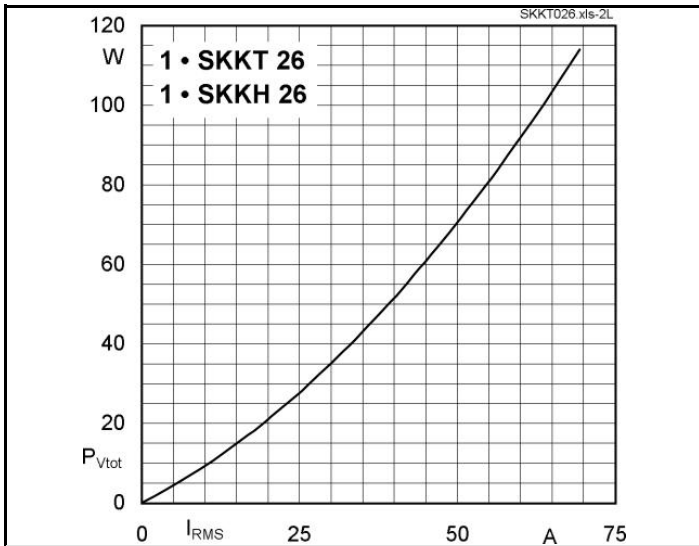


Fig. 2L Power dissipation per module vs. rms current

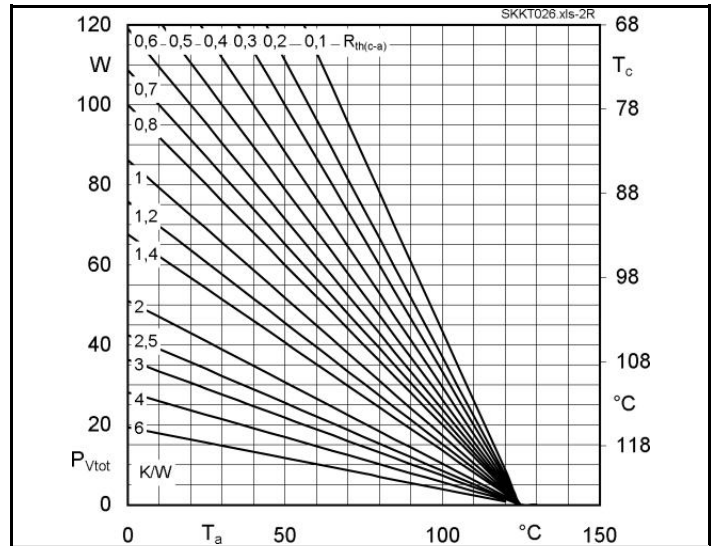


Fig. 2R Power dissipation per module vs. case temp.

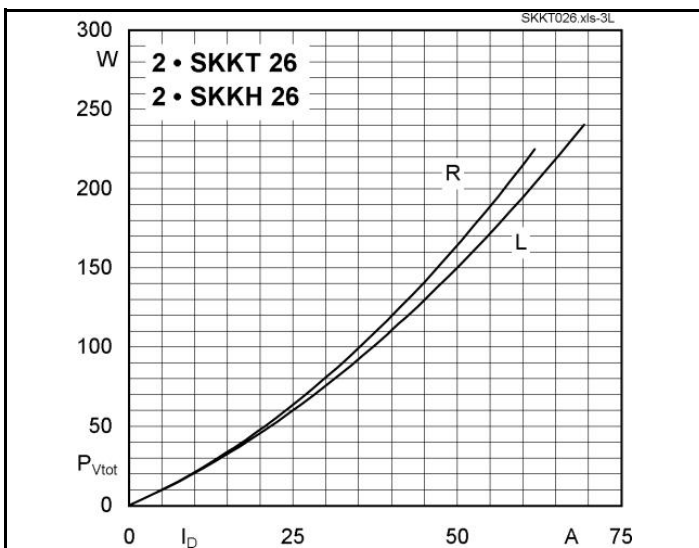


Fig. 3L Power dissipation of two modules vs. direct current

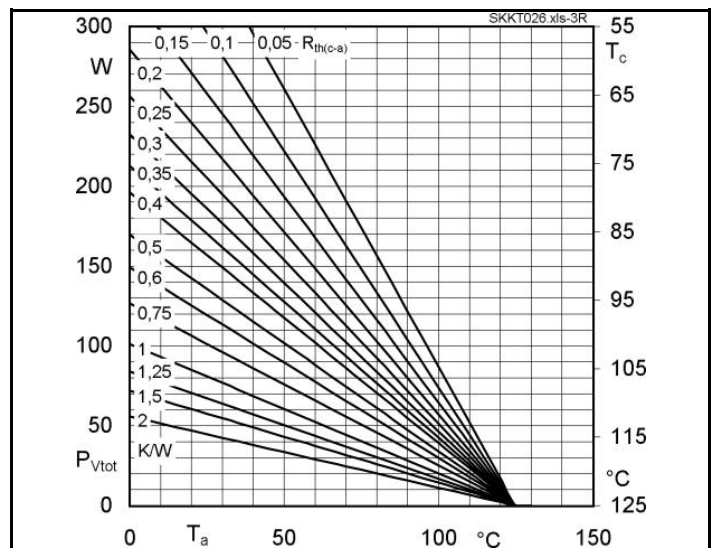
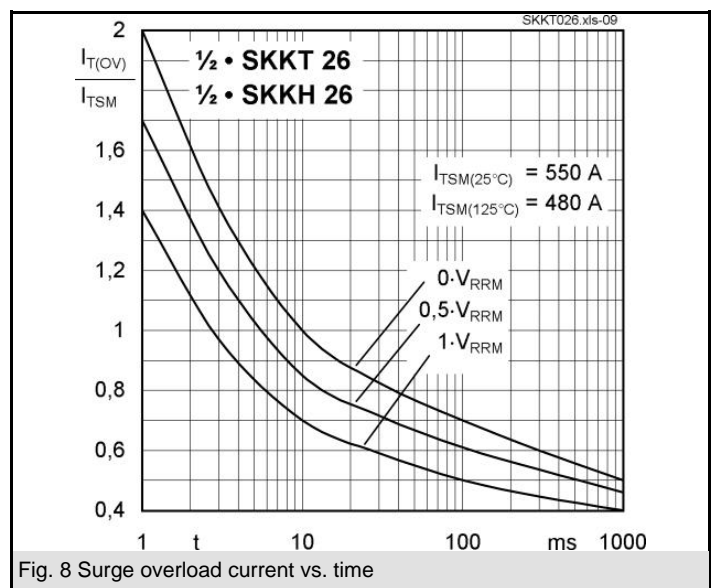
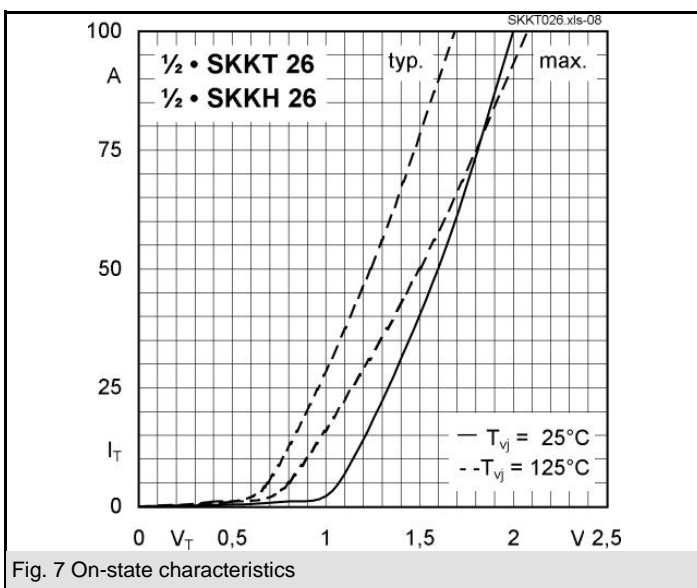
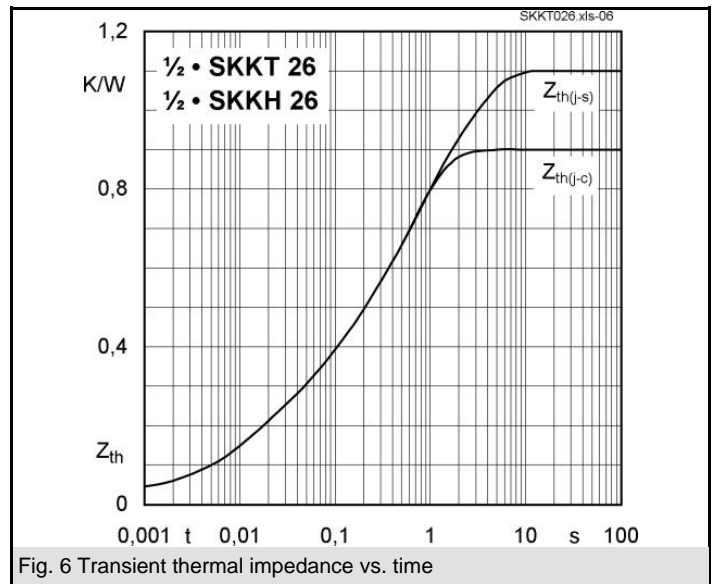
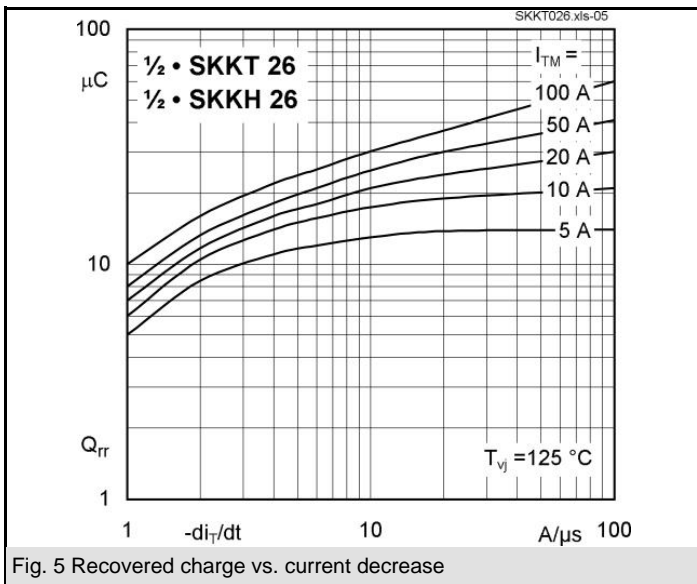
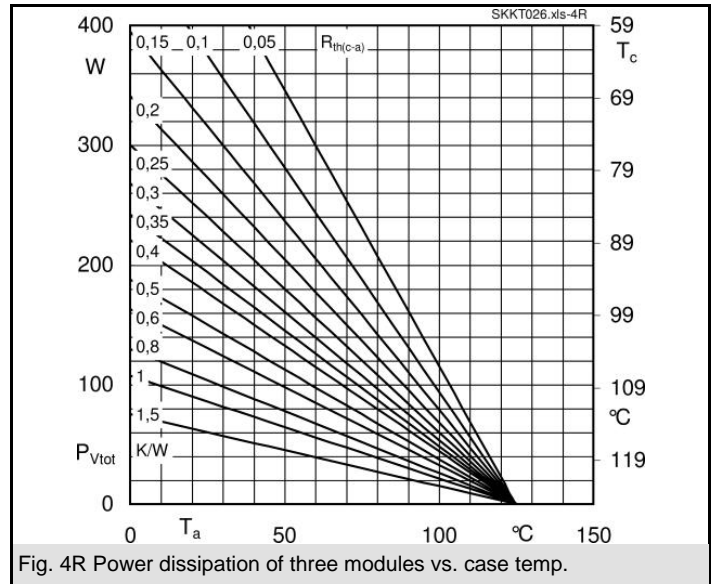
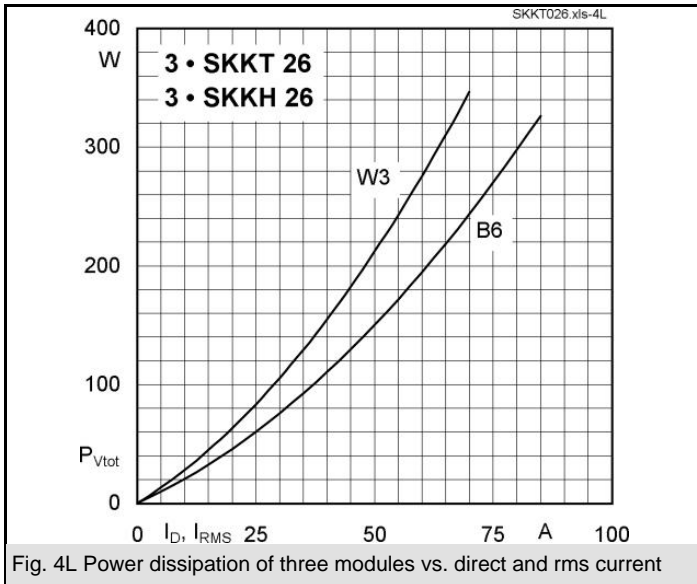
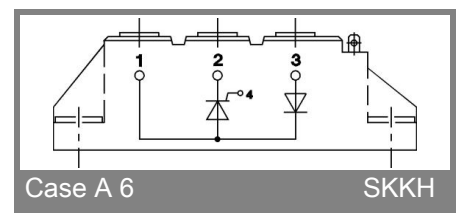
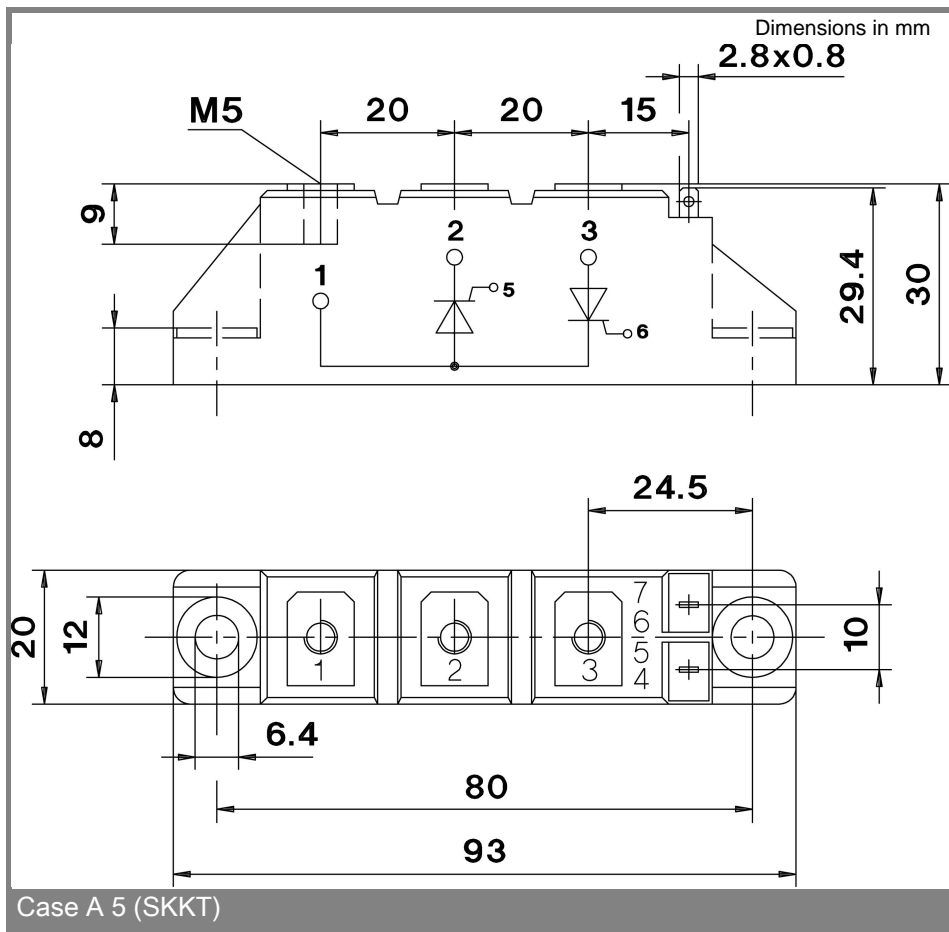
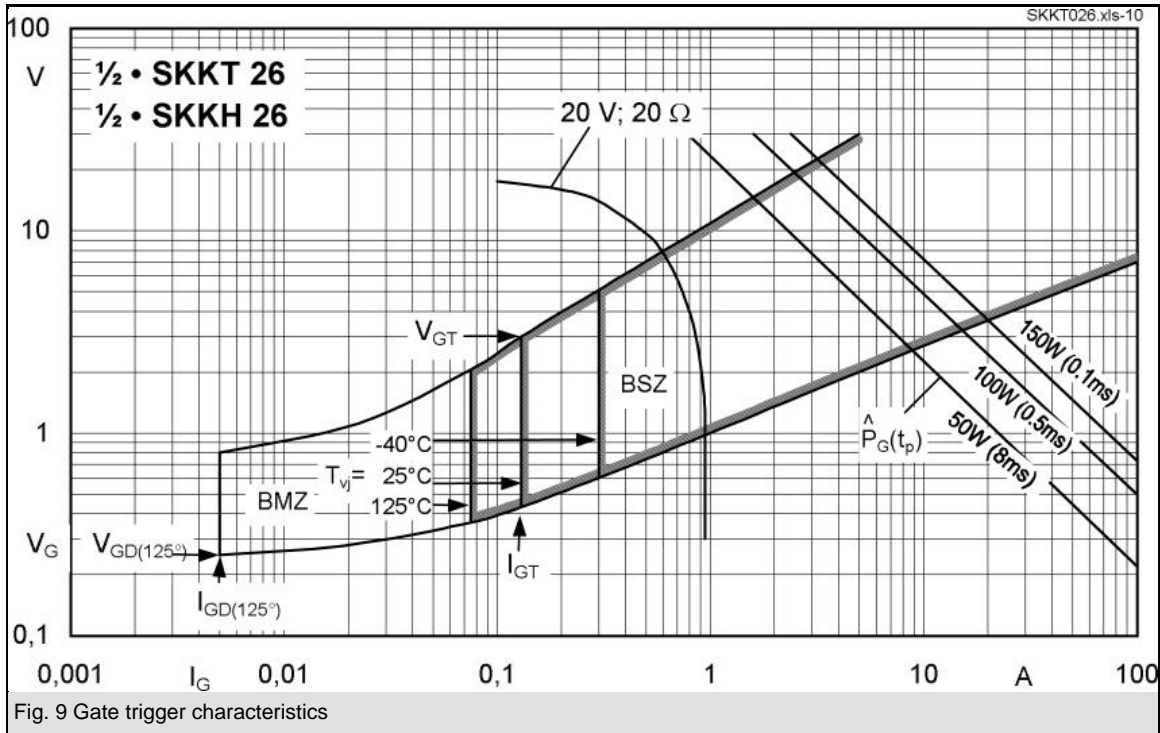


Fig. 3R Power dissipation of two modules vs. case temp.

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