

SKKT 57 H4, SKKH 57 H4



SEMIPACK® 1

Thyristor / Diode Modules

SKKT 57 H4

SKKH 57 H4

Features

- Heat transfer through aluminium oxide ceramic isolated metal baseplate
- Hard soldered joints for high reliability
- UL recognized, file no. E 63532

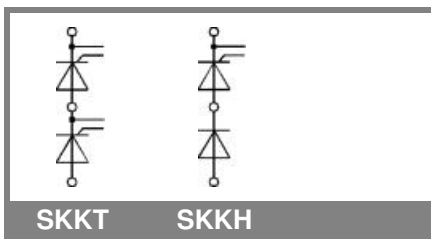
Typical Applications*

- 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

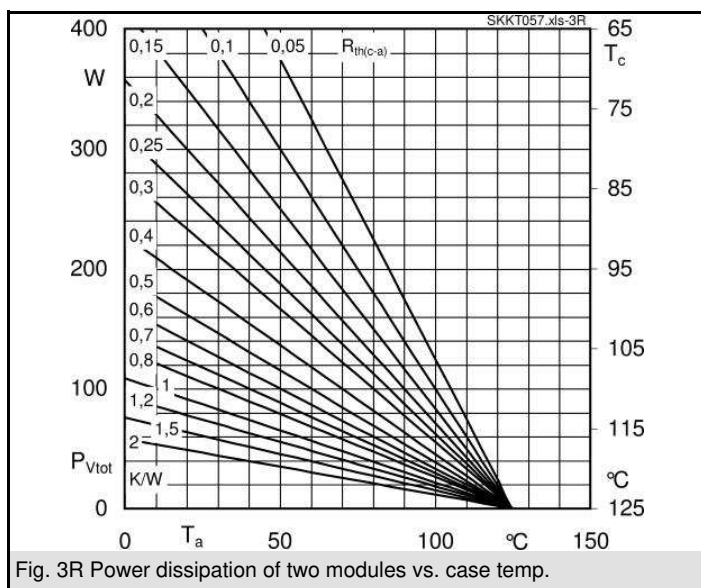
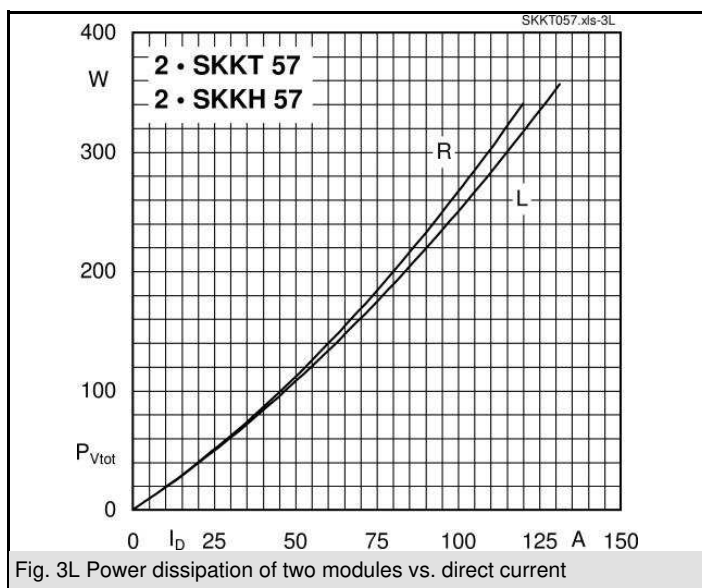
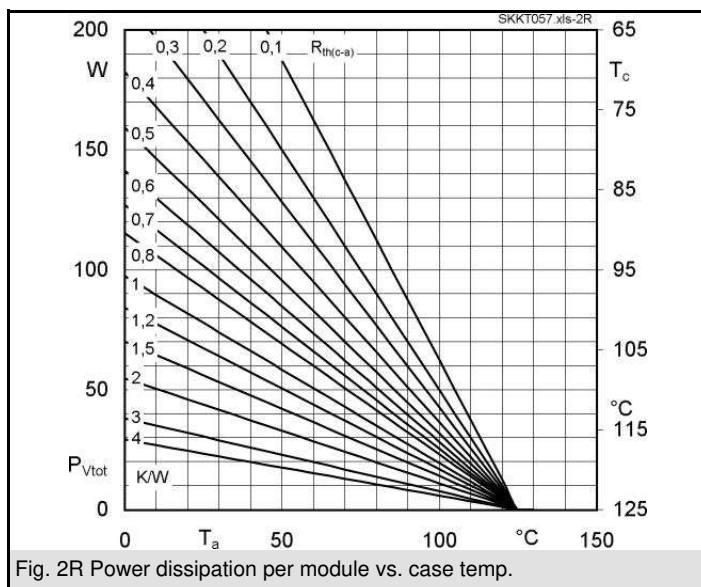
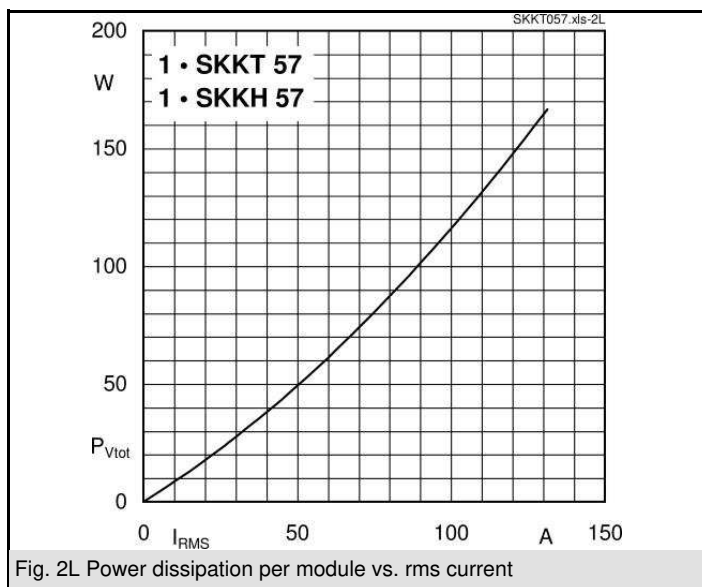
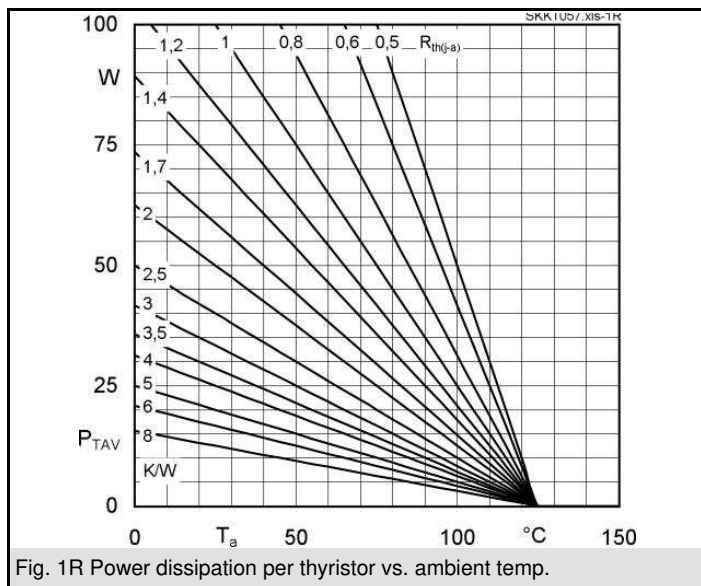
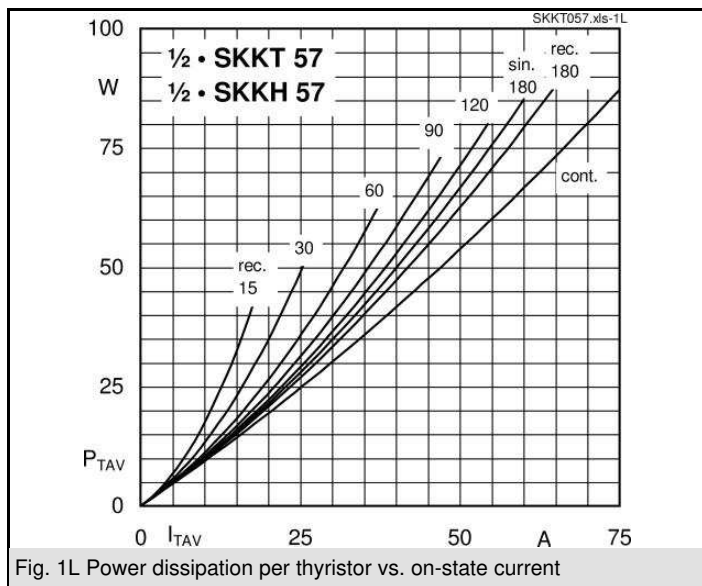
V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{TRMS} = 95 \text{ A}$ (maximum value for continuous operation) $I_{TAV} = 55 \text{ A}$ (sin. 180; $T_c = 80 \text{ }^{\circ}\text{C}$)		
2100 2300	2000 2200	SKKT 57/20E H4 SKKT 57/22E H4	SKKH 57/20E H4 SKKH 57/22E H4	

Symbol	Conditions	Values	Units
I_{TAV}	sin. 180; $T_c = 85 (100) \text{ }^{\circ}\text{C}$;	50 (35)	A
I_D	P3/180; $T_a = 45 \text{ }^{\circ}\text{C}$; B2 / B6	57 / 68	A
	P3/180F; $T_a = 35 \text{ }^{\circ}\text{C}$; B2 / B6	100 / 130	A
I_{RMS}	P3/180F; $T_a = 35 \text{ }^{\circ}\text{C}$; W1 / W3	130 / 3 x 100	A
I_{TSM}	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; 10 ms	1500	A
	$T_{vj} = 125 \text{ }^{\circ}\text{C}$; 10 ms	1250	A
i^2t	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; 8,3 ... 10 ms	11000	A ² s
	$T_{vj} = 125 \text{ }^{\circ}\text{C}$; 8,3 ... 10 ms	8000	A ² s
V_T	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; $I_T = 200 \text{ A}$	max. 1,65	V
$V_{T(TO)}$	$T_{vj} = 125 \text{ }^{\circ}\text{C}$	max. 0,9	V
r_T	$T_{vj} = 125 \text{ }^{\circ}\text{C}$	max. 3,5	mΩ
I_{DD}, I_{RD}	$T_{vj} = 125 \text{ }^{\circ}\text{C}$; $V_{RD} = V_{RRM}$; $V_{DD} = V_{DRM}$	max. 30	mA
t_{gd}	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; $I_G = 1 \text{ A}$; $di_G/dt = 1 \text{ A}/\mu\text{s}$	1	μs
t_{gr}	$V_D = 0,67 \cdot V_{DRM}$	2	μs
$(di/dt)_{cr}$	$T_{vj} = 125 \text{ }^{\circ}\text{C}$	max. 150	A/μs
$(dv/dt)_{cr}$	$T_{vj} = 125 \text{ }^{\circ}\text{C}$	max. 1000	V/μs
t_q	$T_{vj} = 125 \text{ }^{\circ}\text{C}$	80	μs
I_H	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; typ. / max.	150 / 250	mA
I_L	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; $R_G = 33 \text{ }^{\circ}\Omega$; typ. / max.	300 / 600	mA
V_{GT}	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; d.c.	min. 3	V
I_{GT}	$T_{vj} = 25 \text{ }^{\circ}\text{C}$; d.c.	min. 150	mA
V_{GD}	$T_{vj} = 125 \text{ }^{\circ}\text{C}$; d.c.	max. 0,25	V
I_{GD}	$T_{vj} = 125 \text{ }^{\circ}\text{C}$; d.c.	max. 6	mA
$R_{th(j-c)}$	cont.; per thyristor / per module	0,57 / 0,29	K/W
$R_{th(j-c)}$	sin. 180; per thyristor / per module	0,6 / 0,3	K/W
$R_{th(j-c)}$	rec. 120; per thyristor / per module	0,64 / 0,32	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.	4800 / 4000	V~
M_s	to heatsink	$5 \pm 15 \text{ }^{\circ}\text{ }^1$	Nm
M_t	to terminals	$3 \pm 15 \text{ }^{\circ}$	Nm
a		$5 \cdot 9,81$	m/s ²
m	approx.	95	g
Case	SKKT	A 46	
	SKKH	A 47	

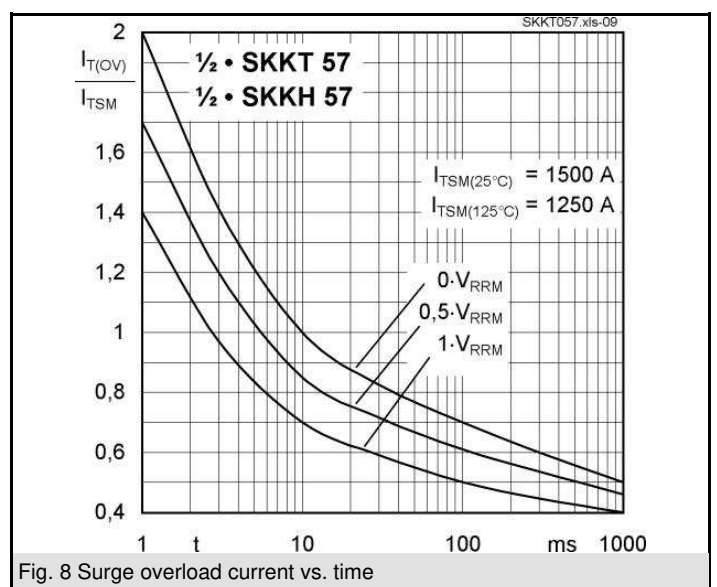
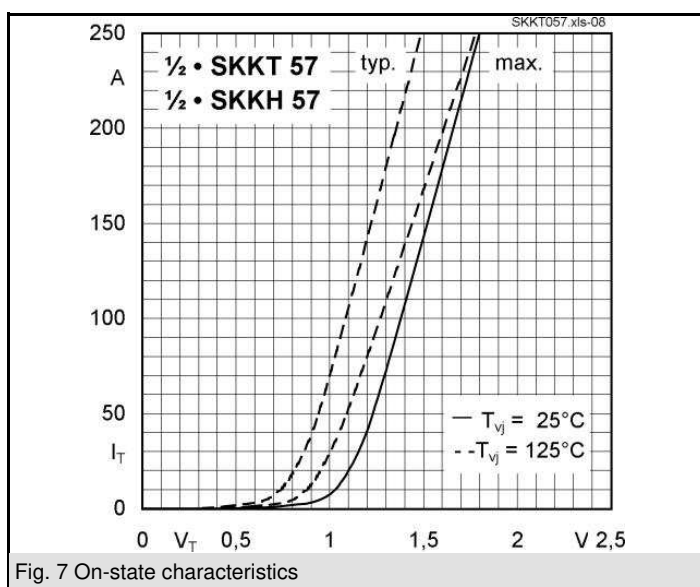
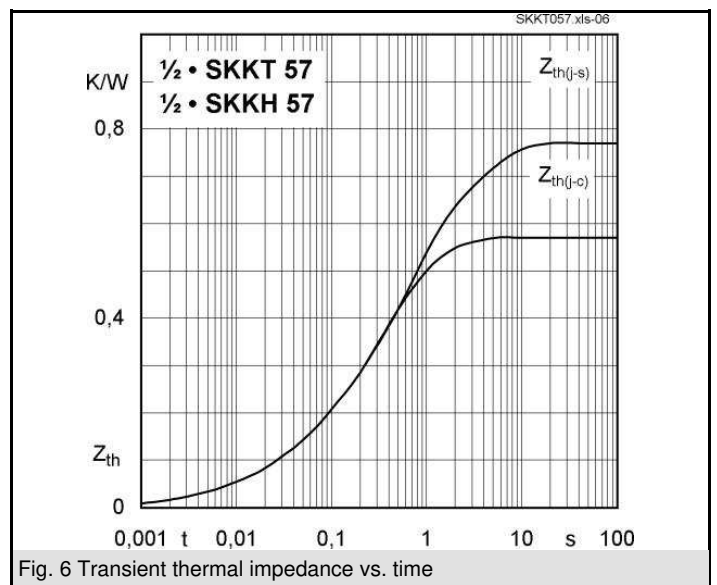
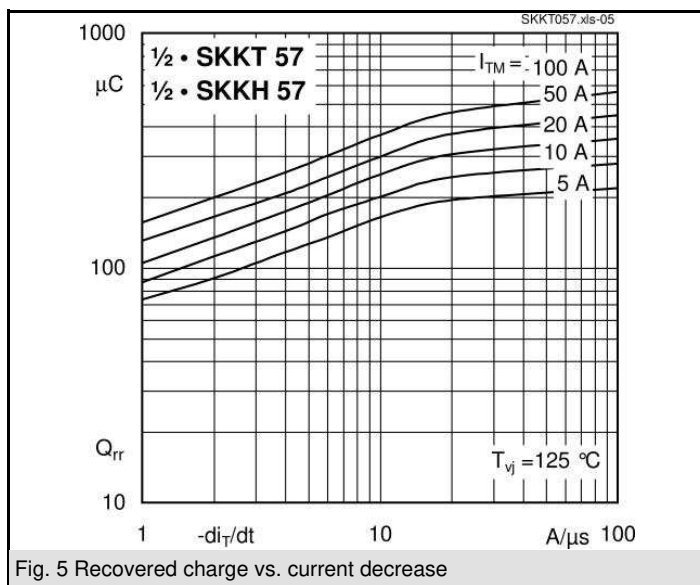
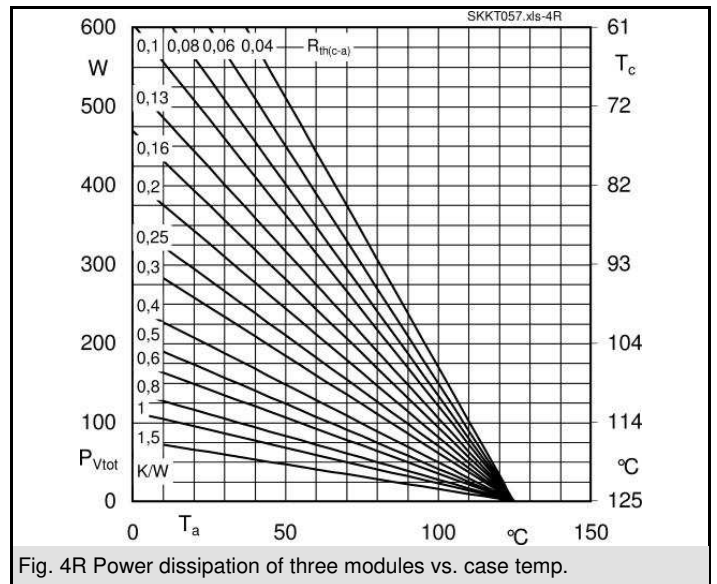
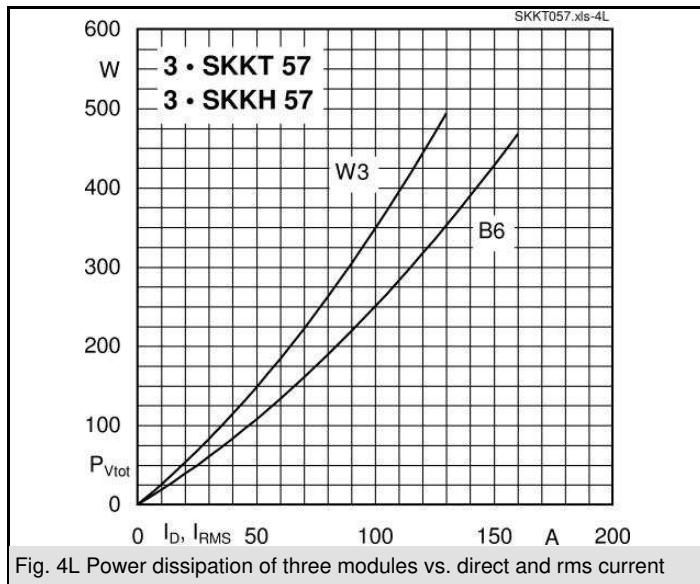


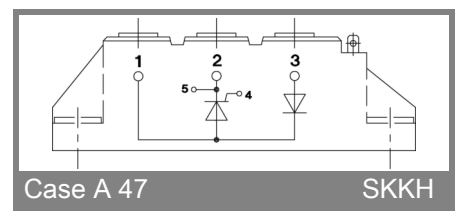
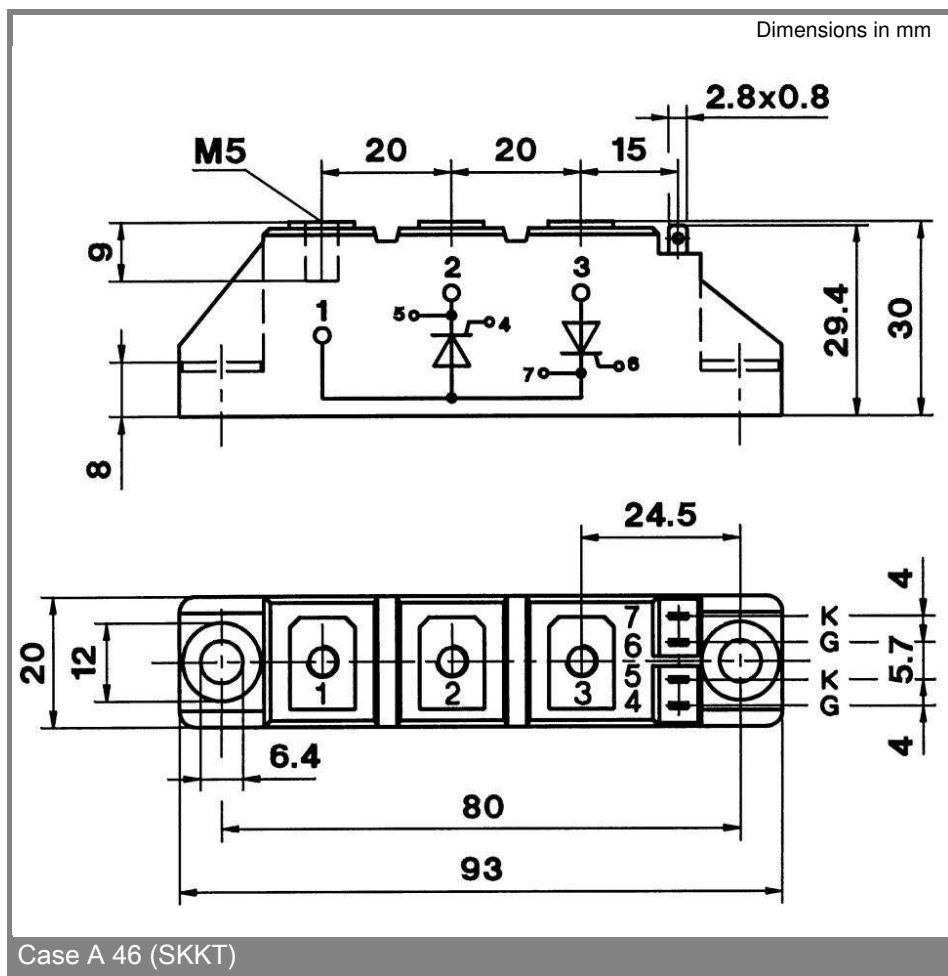
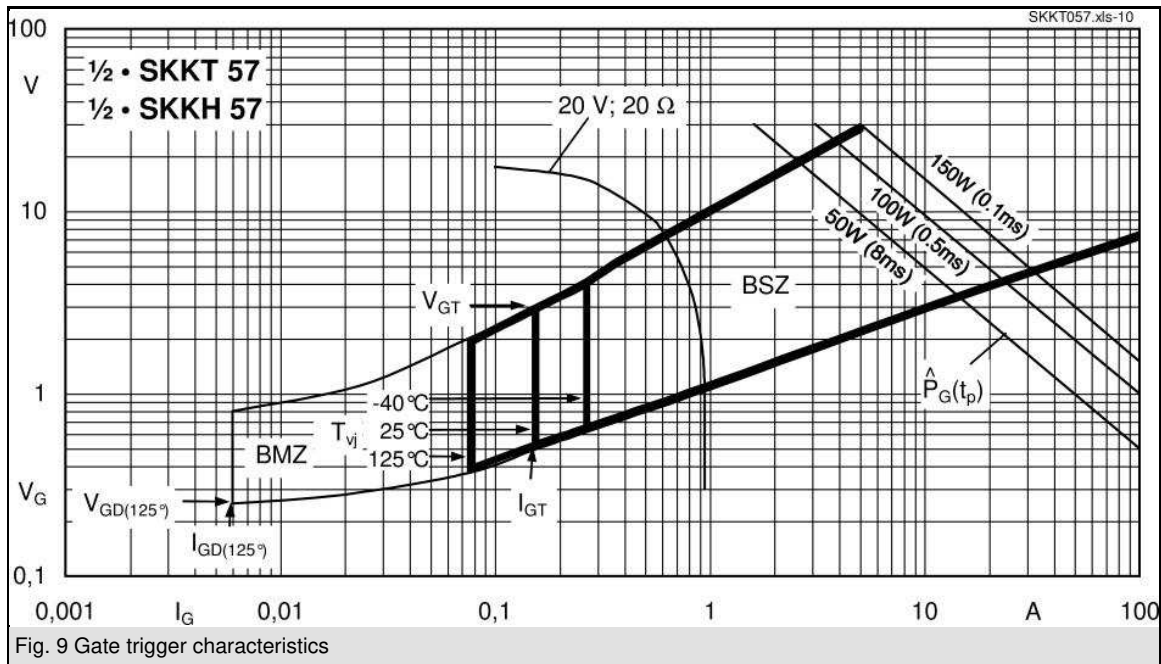
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* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our staff.