

# SKKT 323; SKKH 323



**SEMIPACK® 3**

## Thyristor / Diode Modules

**SKKT 323**

**SKKH 323**

### Features

- Industrial standard package
- Electrically insulated base plate
- Heat transfer through aluminium oxide ceramic insulated metal base plate
- Chip soldered on direct copper bonded Al<sub>2</sub>O<sub>3</sub> ceramic
- Thyristor chip with center gate
- UL recognition applied for file no. E63532

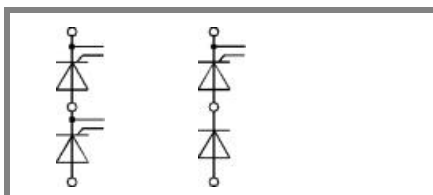
### Typical Applications\*

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

1) See the assembly instructions

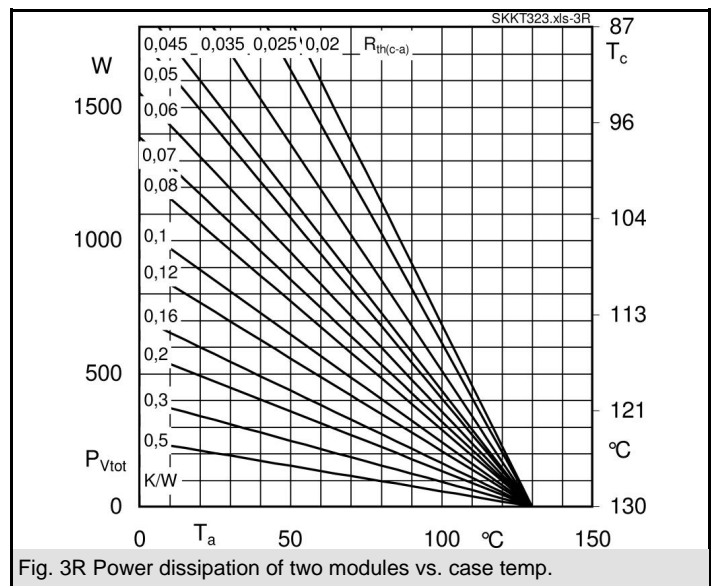
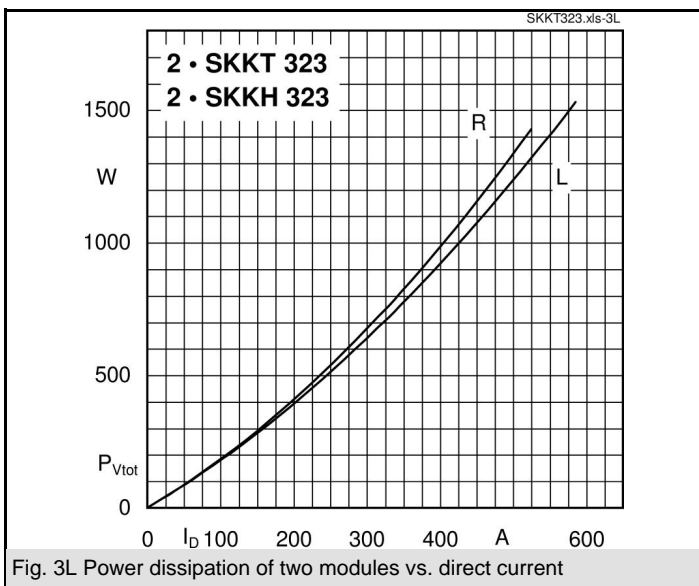
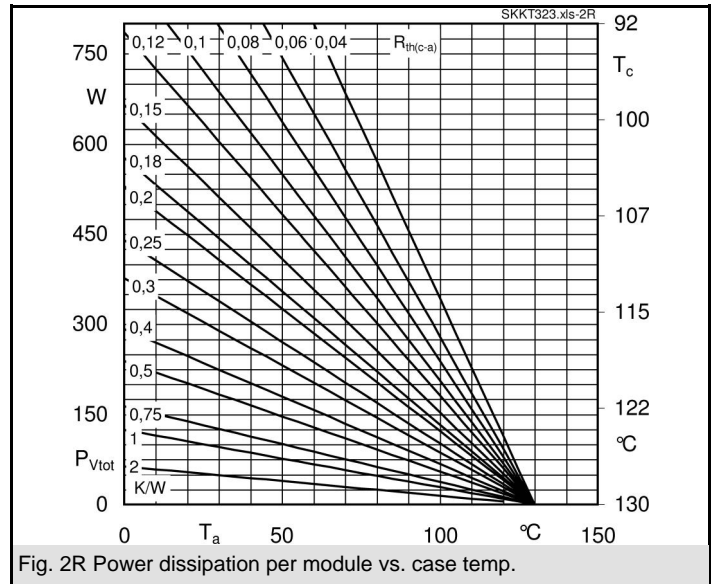
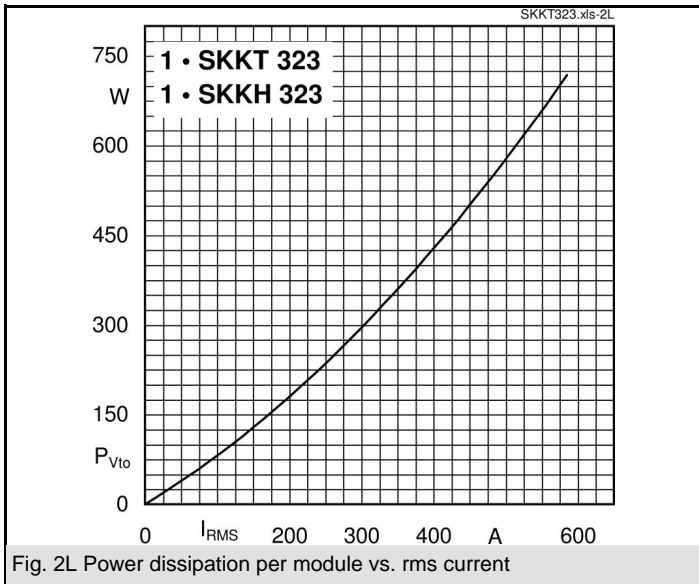
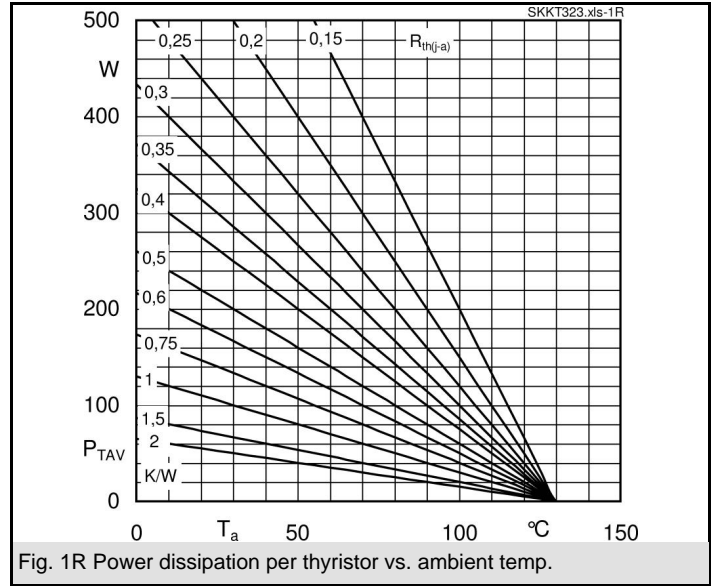
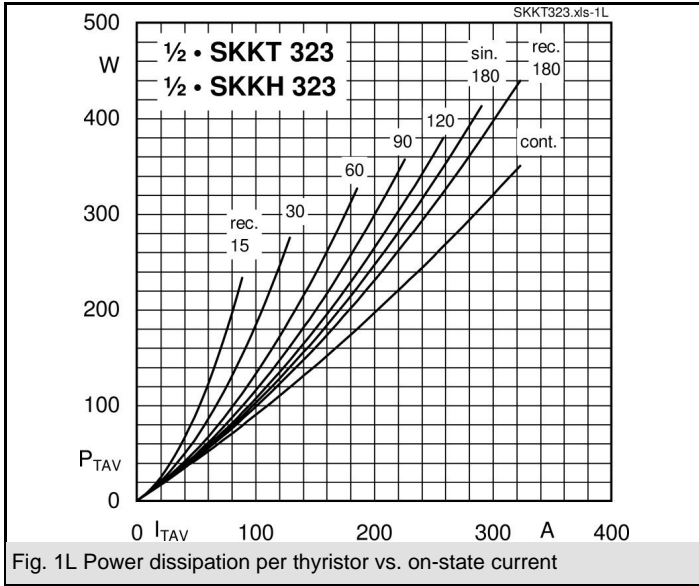
$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_{TRMS} = 520$ A (maximum value for continuous operation) $I_{TAV} = 323$ A (sin. 180; $T_c = 84$ °C)	
1300	1200	SKKT 323/12E	SKKH 323/12E
1700	1600	SKKT 323/16E	SKKH 323/16E

Symbol	Conditions	Values	Units
$I_{TAV}$	sin. 180; $T_c = 85$ (100) °C;	320 (241)	A
$I_{TSM}$	$T_{vj} = 25$ °C; 10 ms $T_{vj} = 130$ °C; 10 ms	9500 8200	A A
$i^2t$	$T_{vj} = 25$ °C; 8,3 ... 10 ms $T_{vj} = 130$ °C; 8,3 ... 10 ms	450000 336000	A <sup>2</sup> s A <sup>2</sup> s
$V_T$	$T_{vj} = 25$ °C; $I_T = 750$ A	max. 1,45	V
$V_{T(TO)}$	$T_{vj} = 130$ °C	max. 0,81	V
$r_T$	$T_{vj} = 130$ °C	max. 0,85	mΩ
$I_{DD}; I_{RD}$	$T_{vj} = 130$ °C; $V_{RD} = V_{RRM}; V_{DD} = V_{DRM}$	max. 100	mA
$t_{gd}$	$T_{vj} = 25$ °C; $I_G = 1$ A; $di_G/dt = 1$ A/μs	1	μs
$t_{gr}$	$V_D = 0,67 * V_{DRM}$	2	μs
$(di/dt)_{cr}$	$T_{vj} = 130$ °C	max. 130	A/μs
$(dv/dt)_{cr}$	$T_{vj} = 130$ °C	max. 1000	V/μs
$t_q$	$T_{vj} = 130$ °C, typ.	150	μs
$I_H$	$T_{vj} = 25$ °C; typ. / max.	150 / 500	mA
$I_L$	$T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max.	300 / 2000	mA
$V_{GT}$	$T_{vj} = 25$ °C; d.c.	min. 2	V
$I_{GT}$	$T_{vj} = 25$ °C; d.c.	min. 150	mA
$V_{GD}$	$T_{vj} = 130$ °C; d.c.	max. 0,25	V
$I_{GD}$	$T_{vj} = 130$ °C; d.c.	max. 10	mA
$R_{th(j-c)}$	cont.; per thyristor / per module	0,091 / 0,0455	K/W
$R_{th(j-c)}$	sin. 180; per thyristor / per module	0,095 / 0,0475	K/W
$R_{th(j-c)}$	rec. 120; per thyristor / per module	0,11 / 0,055	K/W
$R_{th(c-s)}$	per thyristor / per module	0,08 / 0,04	K/W
$T_{vj}$		- 40 ... + 130	°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	$5 \pm 15$ % <sup>1)</sup>	Nm
$M_t$	to terminals	$9 \pm 15$ %	Nm
$a$		$5 * 9,81$	m/s <sup>2</sup>
$m$	approx.	410	g
Case	SKKT SKKH	A 43a A 56a	

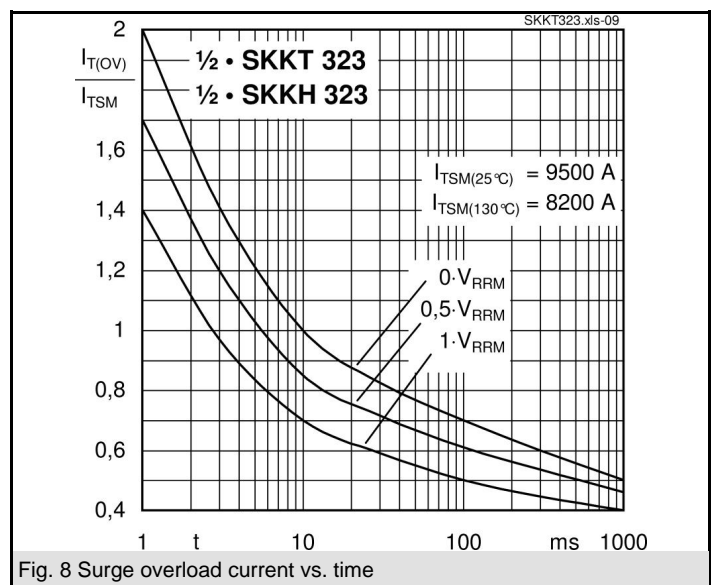
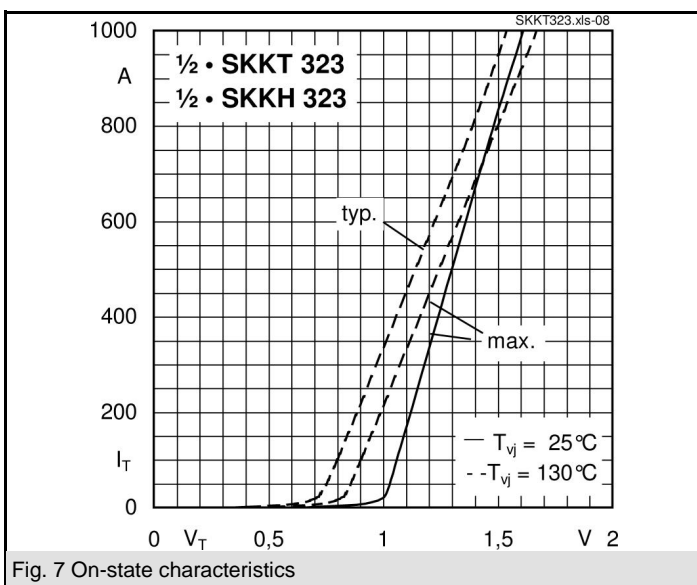
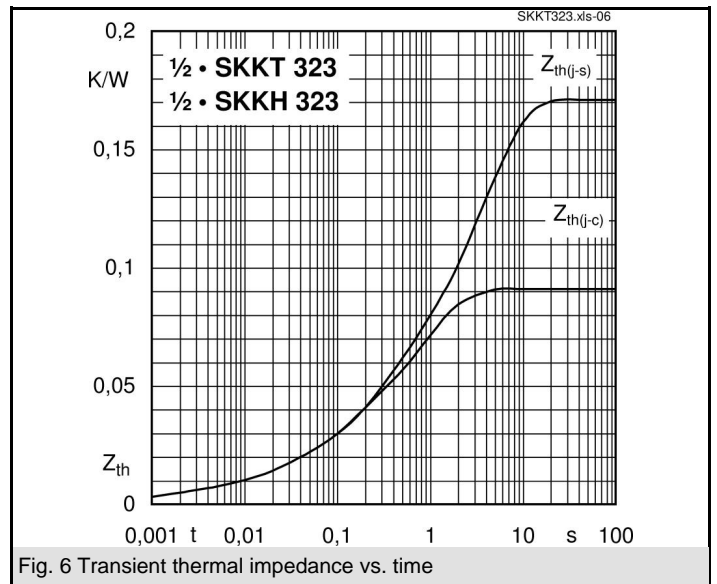
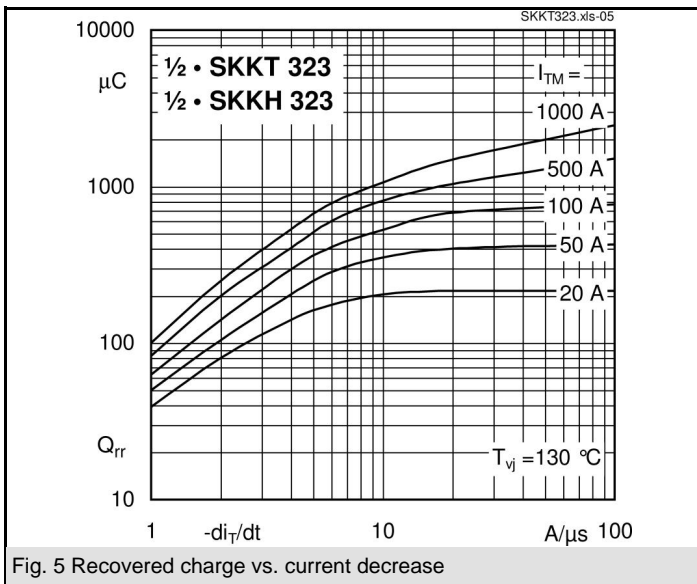
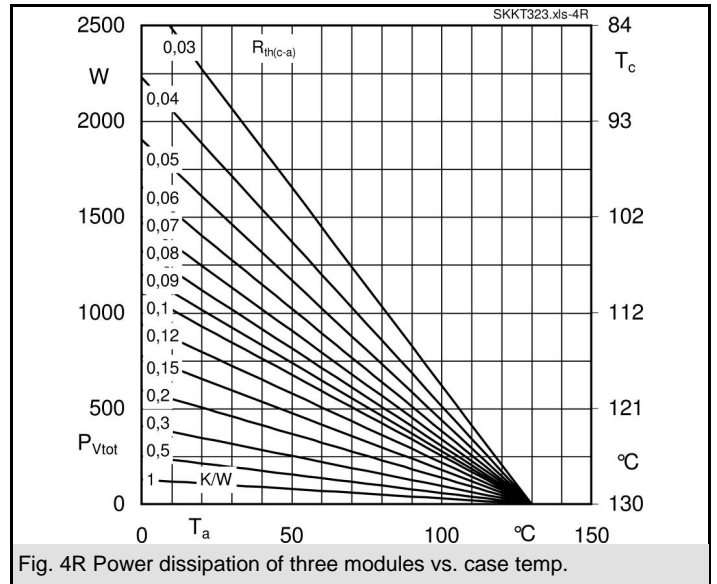
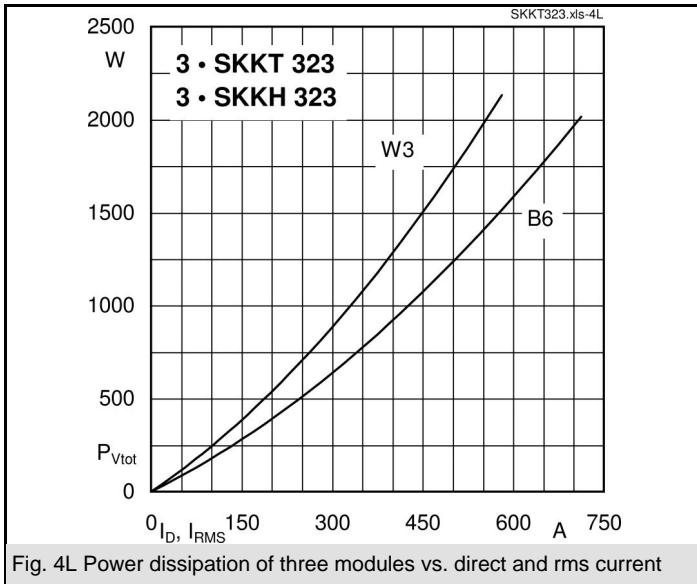


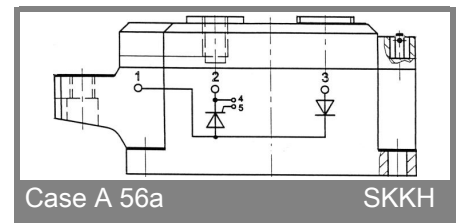
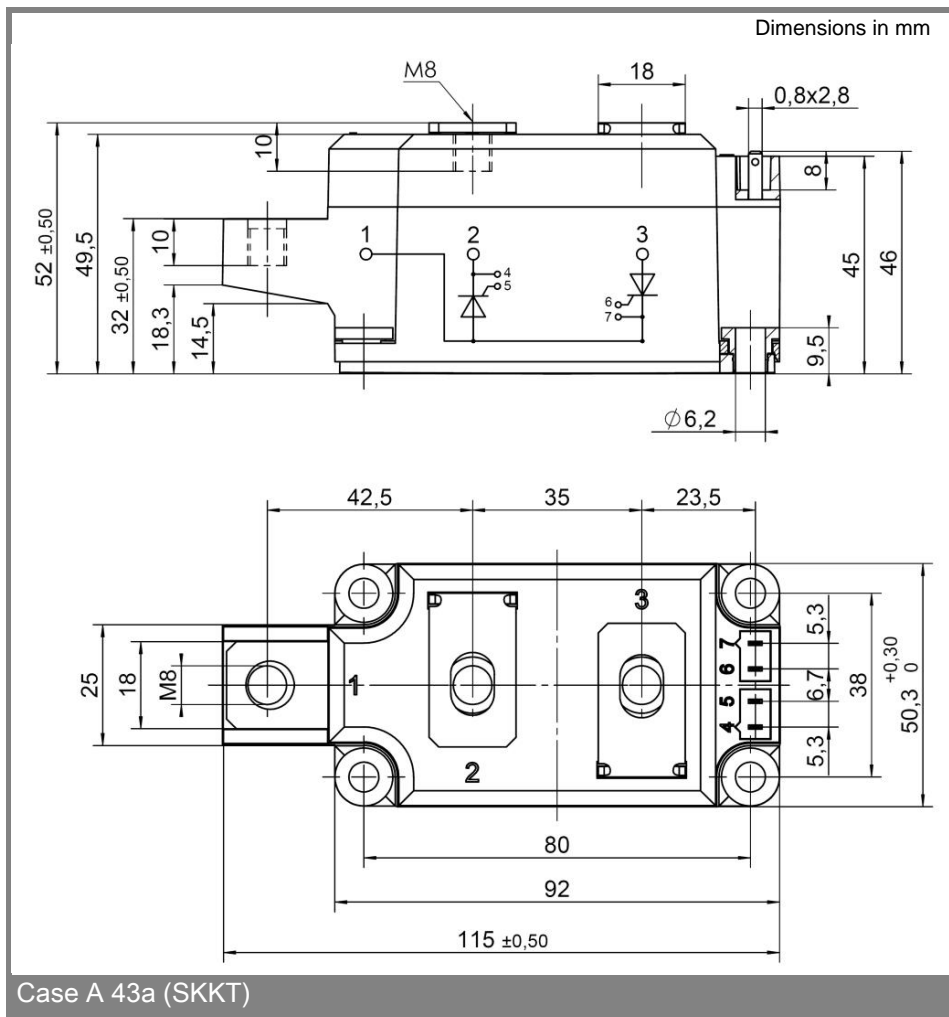
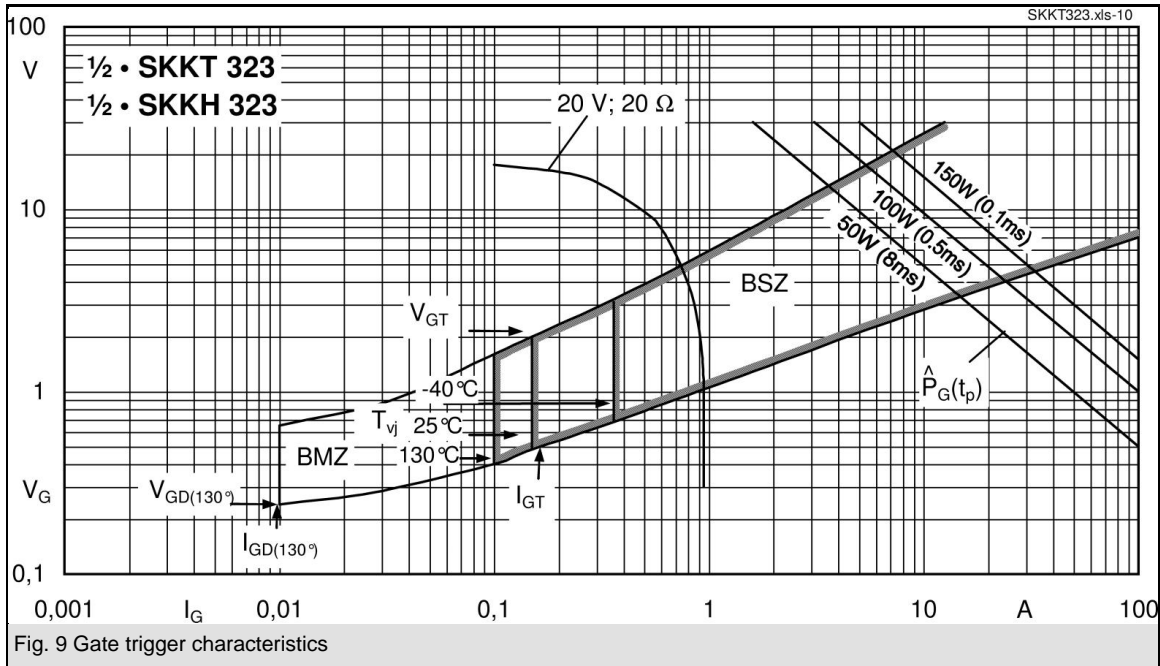
SKKT

SKKH



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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.