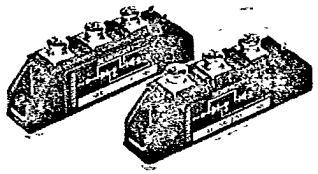
V_{RSM}	V_{RRM} V_{DRM}	$(dv/dt)_{cr}$	I_{TRMS} (maximum values for continuous operation) 75 A	95 A	75 A	95 A
			I_{TAV} (sin. 180; T_{case} = 74 °C)			
V	V	V/µs	48 A	60 A	48 A	60 A
500	400	500	**SKKT 41/04 D**	**SKKT 56/04 D**	**SKKH 41/04 D**	**SKKH 56/04 D**
700	600	500	**SKKT 41/06 D**	**SKKT 56/06 D**	**SKKH 41/06 D**	**SKKH 56/06 D**
900	800	500	**SKKT 41/08 D**	**SKKT 56/08 D**	**SKKH 41/08 D**	**SKKH 56/08 D**
1300	1200	500	**SKKT 41/12 D**	**SKKT 56/12 D**	**SKKH 41/12 D**	**SKKH 56/12 D**
		1000	**SKKT 41/12 E**	**SKKT 56/12 E**	–	–
1500	1400	1000	**SKKT 41/14 E**	**SKKT 56/14 E**	**SKKH 41/14 E**	**SKKH 56/14 E**
1700	1600	1000	**SKKT 41/16 E**	**SKKT 56/16 E**	**SKKH 41/16 E**	**SKKH 56/16 E**
1900	1800	1000	–	**SKKT 56/18 E**	–	**SKKH 56/18 E**
2100	2000	1000	–	**SKKT 56/20 E**	–	**SKKH 56/20 E**

Symbol	Conditions	SKKT 41 SKKH 41	SKKT 56 SKKH 56
I_{TAV}	sin. 180; (T_{case} = ...)	48 A (74 °C) 40 A (85 °C)	60 A (74 °C) 55 A (80 °C)
I_D	B2/B6 T_{amb} = 35 °C; P 3/180 F	85 A/110 A	100 A/130 A
I_{RMS}	W1/W3 T_{amb} = 35 °C; P 3/180 F	105 A/3 x 85 A	130 A/3x100 A
I_{TSM}	T_{vj} = 25 °C	1000 A	1500 A
	T_{vj} = 125 °C	850 A	1250 A
i^2t	T_{vj} = 25 °C	5000 A^2s	11000 A^2s
	T_{vj} = 125 °C	3600 A^2s	8000 A^2s
t_{gd}	T_{vj} = 25 °C; I_G = 1 A; di_G/dt = 1 A/µs	1 µs	
t_{gr}	$V_D = 0{,}67 \cdot V_{DRM}$	2 µs	
$(di/dt)_{cr}$	T_{vj} = 125 °C	typ. 100 A/µs	
t_q	T_{vj} = 125 °C	typ. 80 µs	
I_H	T_{vj} = 25 °C	typ. 150 mA; max. 250 mA	
I_L	T_{vj} = 25 °C; R_G = 33 Ω	typ. 300 mA; max. 600 mA	
V_T	T_{vj} = 25 °C; I_T = 200 A	max. 1,95 V	max. 1,65 V
$V_{T(TO)}$	T_{vj} = 125 °C	1 V	0,9 V
r_T	T_{vj} = 125 °C	4,5 mΩ	3,5 mΩ
I_{DD}; I_{RD}	T_{vj} = 125 °C; $V_{DD} = V_{DRM}$; $V_{RD} = V_{RRM}$	max. 15 mA	max. 15 mA
V_{GT}	T_{vj} = 25 °C; d. c.	3 V	
I_{GT}	T_{vj} = 25 °C; d. c.	150 mA	
V_{GD}	T_{vj} = 125 °C; d. c.	0,25 V	
I_{GD}	T_{vj} = 125 °C; d. c.	6 mA	
$R_{th/c}$	cont.	0,65/0,33	0,57/0,29
	sin. 180 } per thyristor/per module (°C/W)	0,69/0,35	0,60/0,30
	rec. 120	0,73/0,37	0,64/0,32
R_{thch}		0,2/0,1 °C/W	
T_{vj}		−40 ... +125 °C	
T_{stg}		−40 ... +125 °C	
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s/1 min	3000 V~/2500 V~	
M_1	Case to heatsink } SI units/	5 Nm/44 lb. in. ± 15 %[1]	
M_2	Busbars to terminals } US units	3 Nm/26 lb. in. ± 15 %	
a		5 · 9,81 m/s^2	
w	approx.	120 g	
Case	→ page B 1 – 85	A 5 (SKKT 41) A 6 (SKKH 41)	A 5 (SKKT 56) A 6 (SKKH 56)

[1] See the assembly instructions

SEMIPACK® 1
Thyristor/ Diode Modules

SKKT 41 **SKKH 41**
SKKT 56 **SKKH 56**



SKKT SKKH

Features

- Heat transfer through 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)

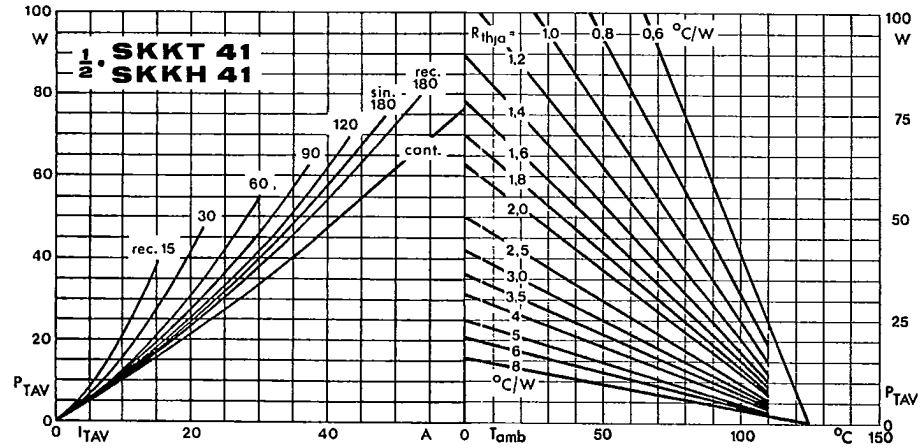


Fig. 1 a Power dissipation per thyristor vs. on-state current and ambient temperature

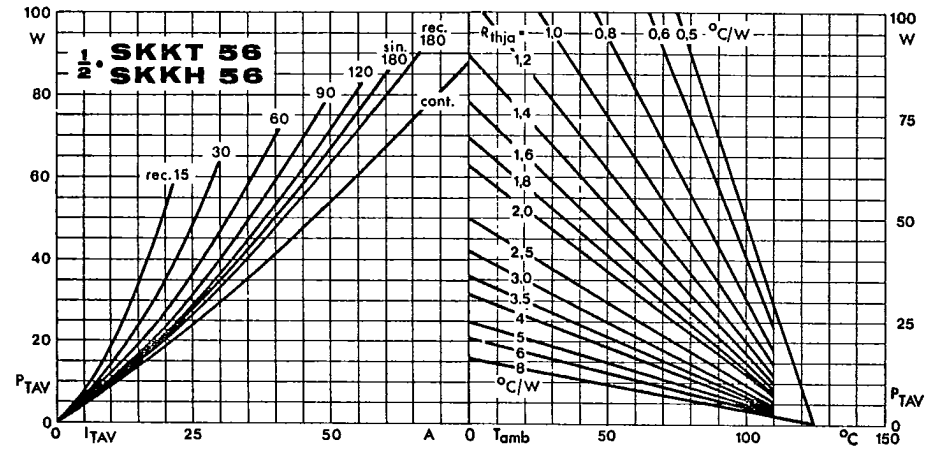


Fig. 1 b Power dissipation per thyristor vs. on-state current and ambient temperature

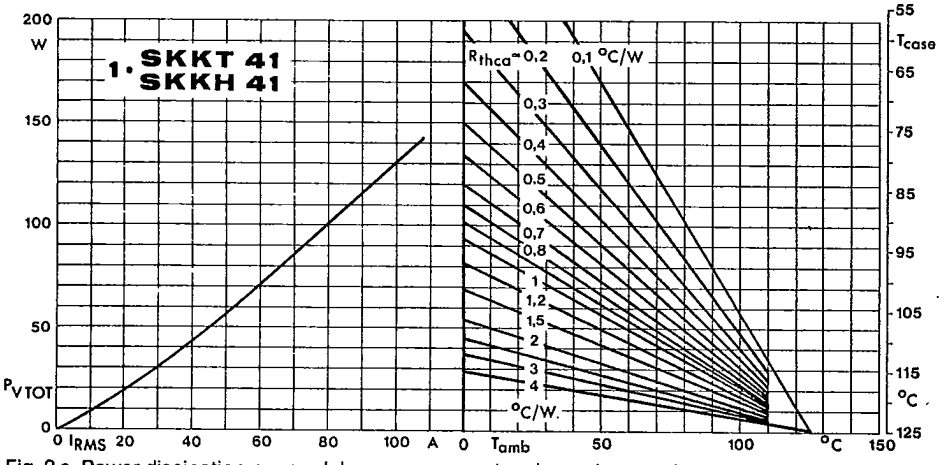


Fig. 2 a Power dissipation per module vs. rms current and case temperature

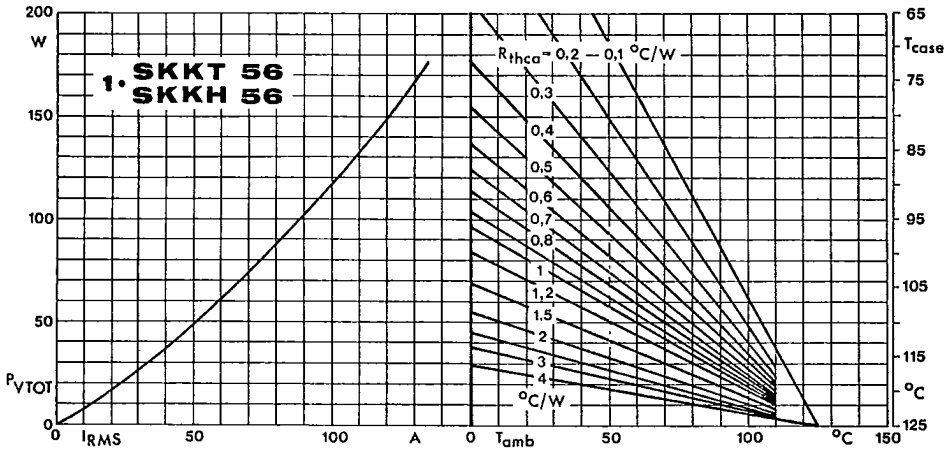


Fig. 2 b Power dissipation per module vs. rms current and case temperature

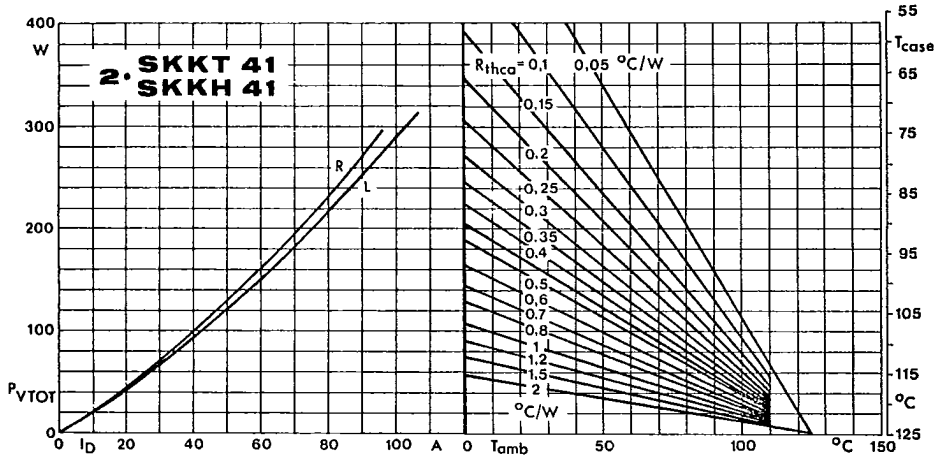


Fig. 3 a Power dissipation of two modules vs. direct current and case temperature

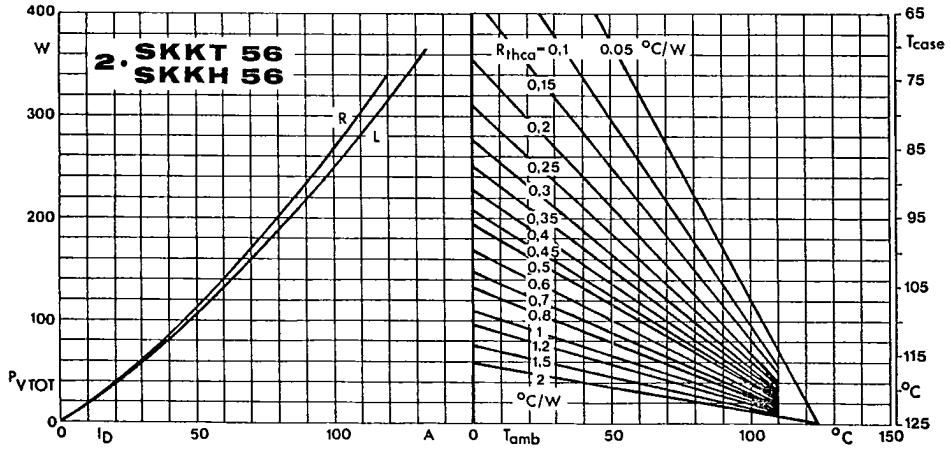


Fig. 3 b Power dissipation of two modules vs. direct current and case temperature

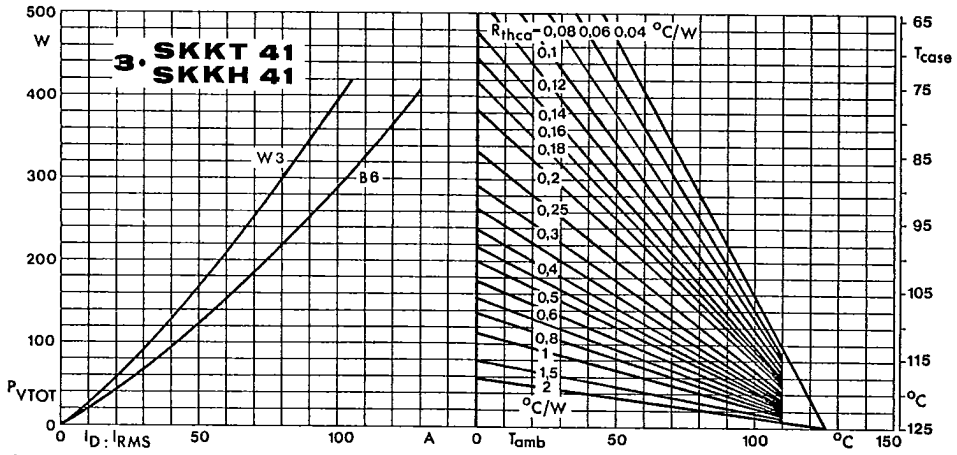


Fig. 4 a Power dissipation of three modules vs. direct and rms current and case temperature

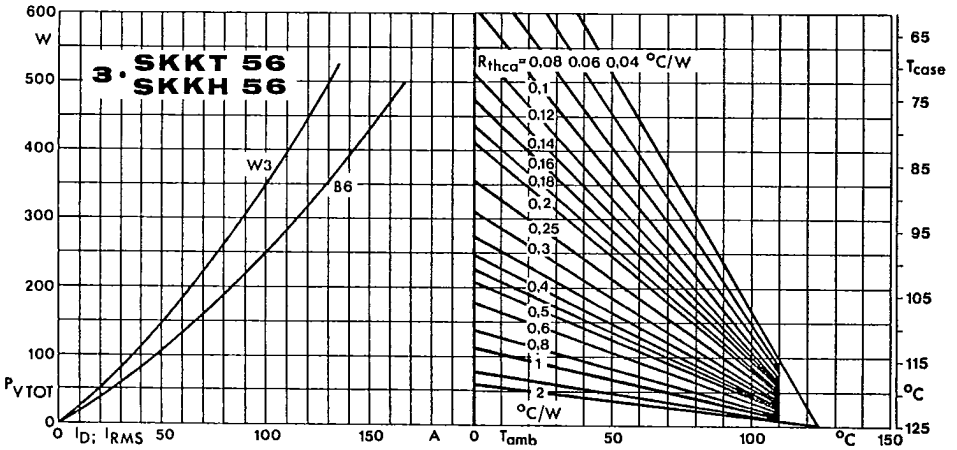


Fig. 4 b Power dissipation of three modules vs. direct and rms current and case temperature

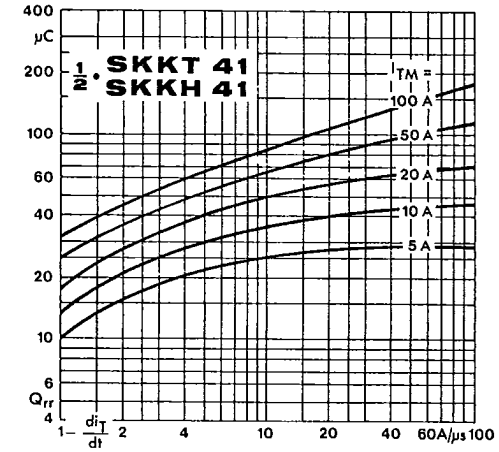


Fig. 5 a Recovered charge vs. current decrease

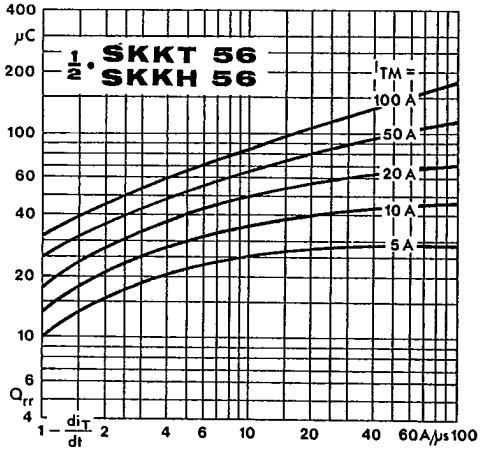


Fig. 5 b Recovered charge vs. current decrease

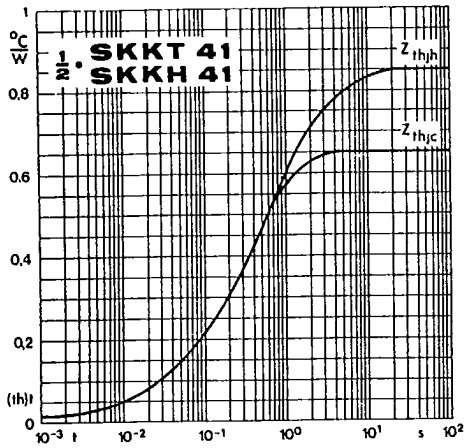


Fig. 6 a Transient thermal impedance vs. time

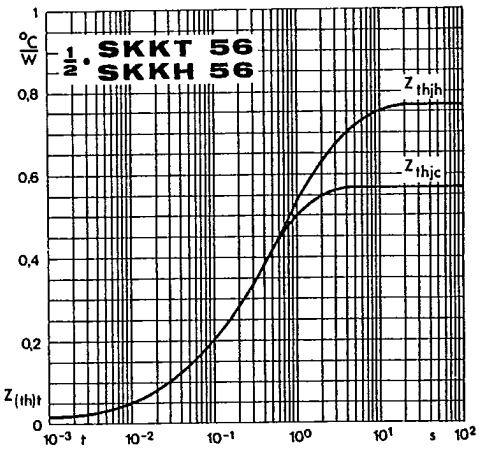


Fig. 6 b Transient thermal impedance vs. time

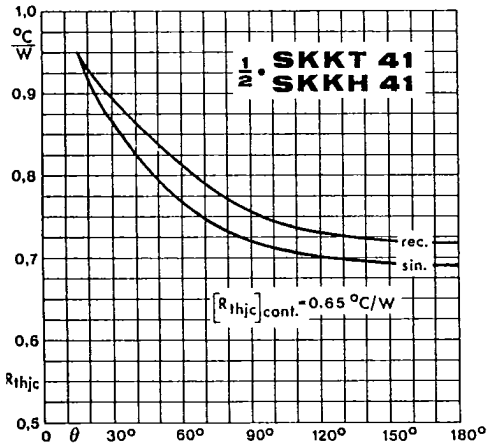


Fig. 7 a Thermal resistance vs. conduction angle

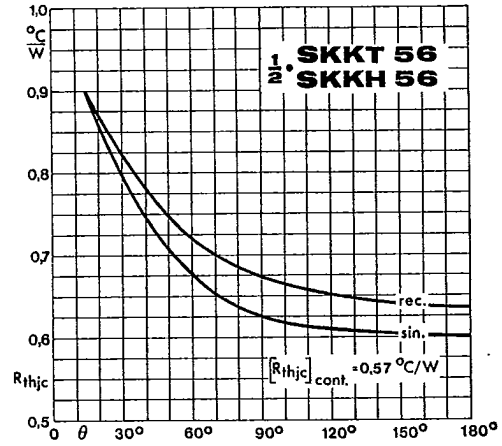


Fig. 7 b Thermal resistance vs. conduction angle

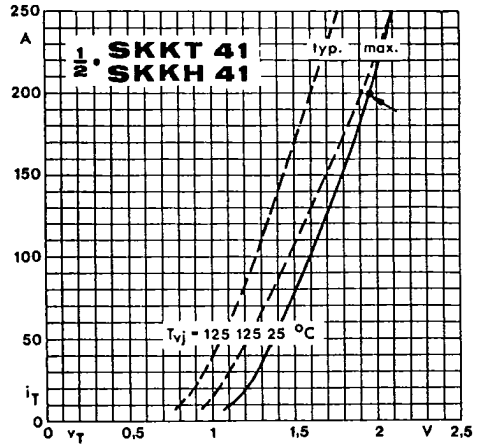


Fig. 8 a On-state characteristics

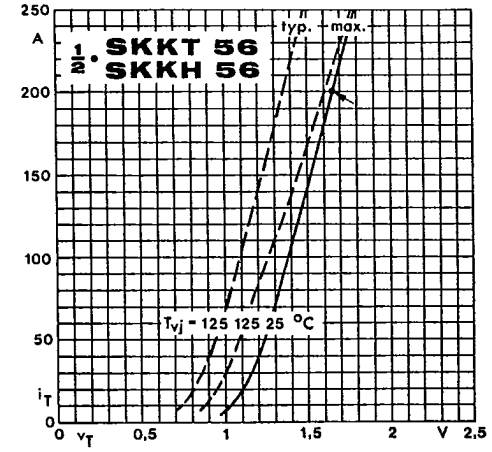


Fig. 8 b On-state characteristics

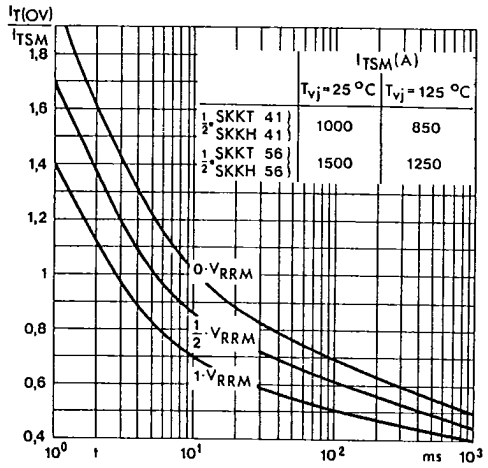


Fig. 9 Surge overload current vs. time

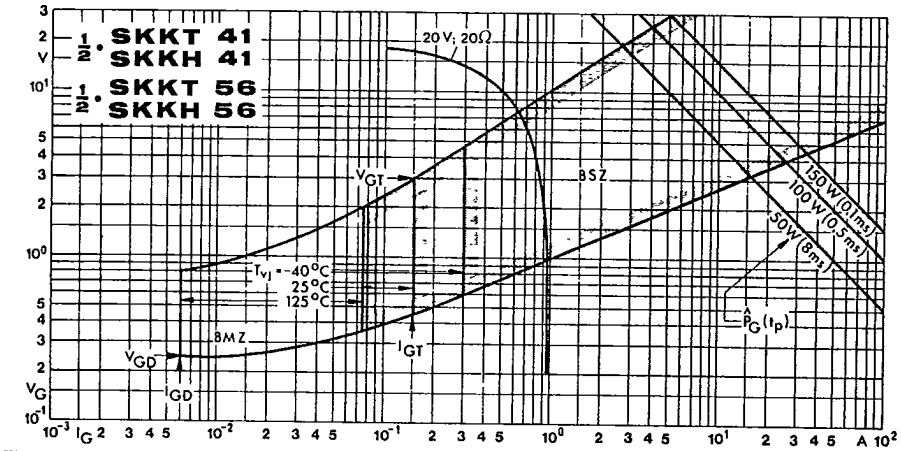


Fig. 10 Gate trigger characteristics