



SEMIPONT® 1

Controllable Bridge Rectifiers

SKBH 28

Features

- Sturdy isolated metal baseplate
- Fast-on terminals with solder tips
- Suitable for wave soldering
- High surge current rating
- UL recognized, file no. E 63 532

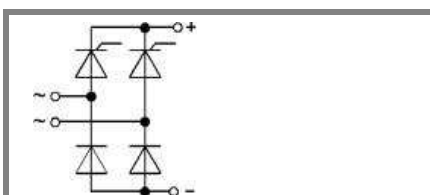
Typical Applications*

- Controllable single phase rectifier
- DC power supplies
- DC motor controllers
- DC motor field controllers

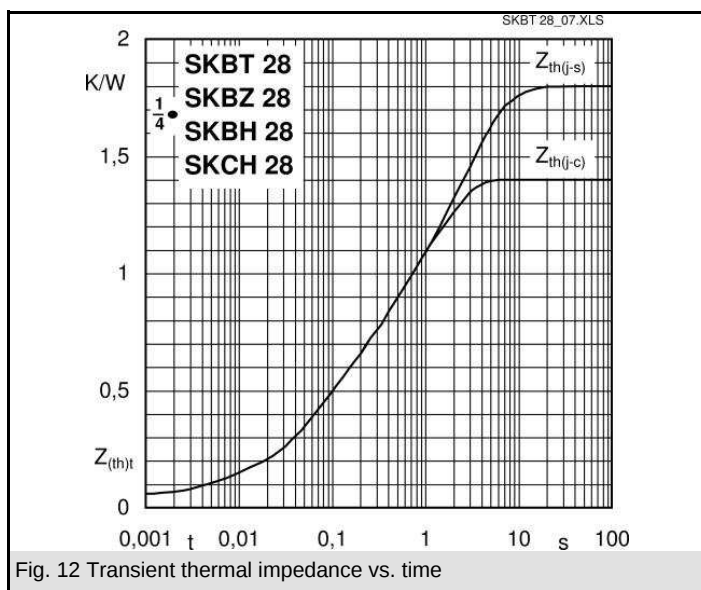
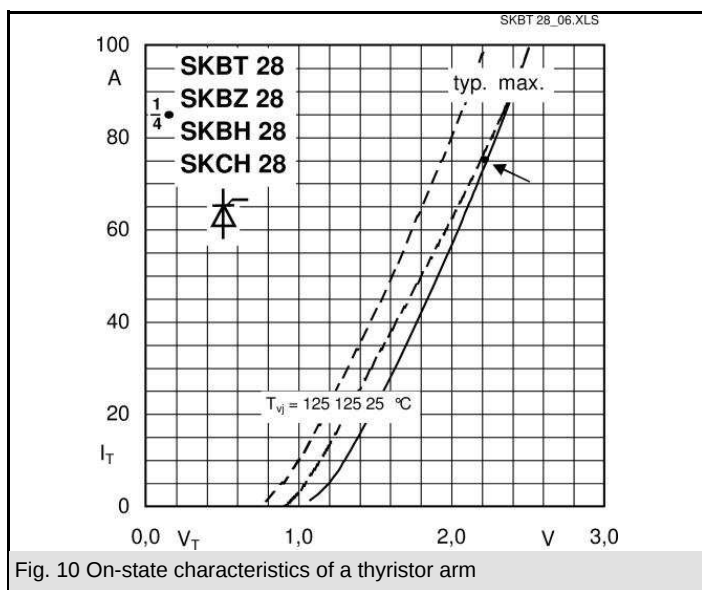
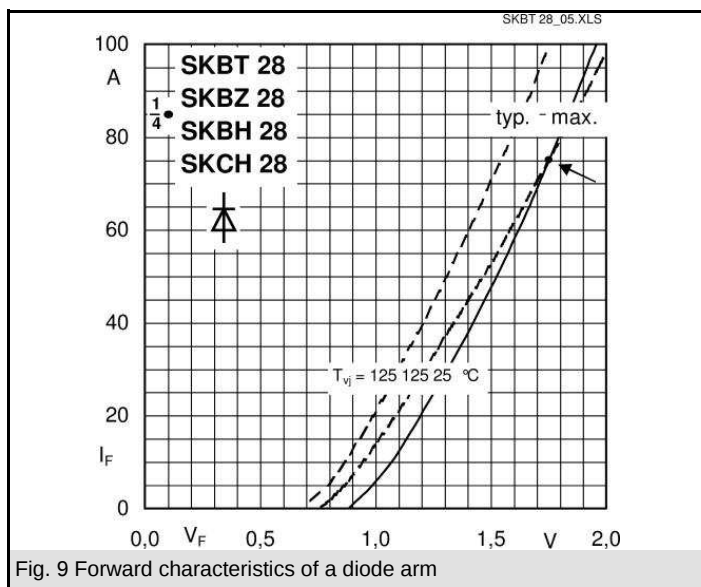
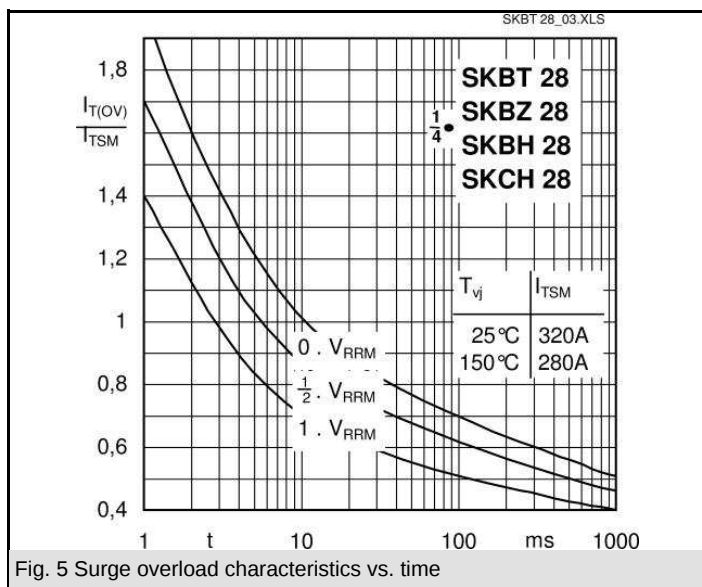
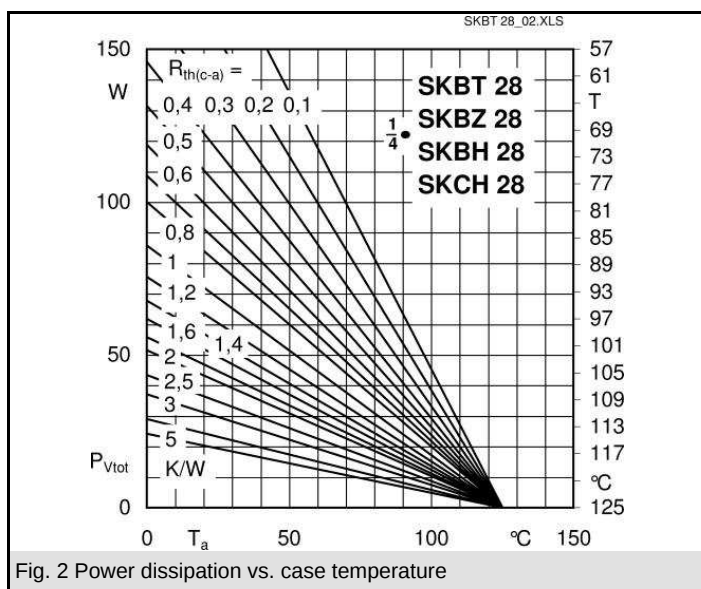
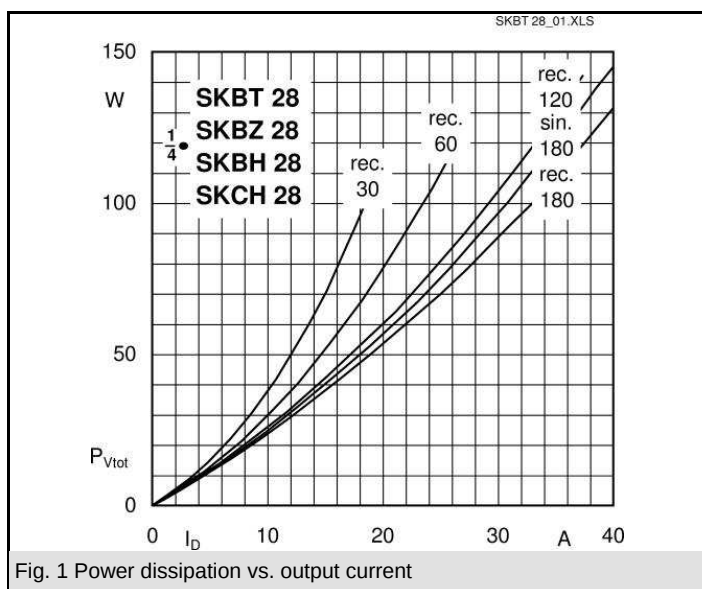
- 1) Painted metal shield of minimum 250 x 250 x 1 mm: $R_{th(c-a)} = 1,85 \text{ K/W}$
- 2) Freely suspended or mounted on insulator

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_D = 28 \text{ A (full conduction)}$ ($T_c = 89^\circ \text{C}$)
600	600	SKBH 28/06
800	800	SKBH 28/08
1200	1200	SKBH 28/12
1400	1400	SKBH 28/14

Symbol	Conditions	Values	Units
I_D	$T_c = 85^\circ \text{C}$ $T_a = 45^\circ \text{C}$; chassis 1) $T_a = 45^\circ \text{C}$; P5A/100 $T_a = 45^\circ \text{C}$; P13A/125 $T_a = 45^\circ \text{C}$; P1A/120	30 13 15 16 23	A A A A A
I_{TSM}, I_{FSM}	$T_{vj} = 25^\circ \text{C}$; 10 ms $T_{vj} = 125^\circ \text{C}$; 10 ms	320 280	A A
i^2t	$T_{vj} = 25^\circ \text{C}$; 8,3 ... 10 ms $T_{vj} = 125^\circ \text{C}$; 8,3 ... 10 ms	510 390	A ² s A ² s
V_T $V_{T(TO)}$ r_T	$T_{vj} = 25^\circ \text{C}$; $I_T = 75 \text{ A}$ $T_{vj} = 125^\circ \text{C}$; $T_{vj} = 125^\circ \text{C}$	max. 2,25 max. 1 max. 16	V V mΩ
I_{DD}, I_{RD}	$T_{vj} = 125^\circ \text{C}$; $V_{DD} = V_{DRM}$; $V_{RD} = V_{RRM}$	max. 8	mA
t_{gd} t_{gr}	$T_{vj} = 25^\circ \text{C}$; $I_G = 1 \text{ A}$; $di_G/dt = 1 \text{ A/}\mu\text{s}$ $V_D = 0,67 \cdot V_{DRM}$	1 1	μs μs
$(dv/dt)_{cr}$ $(di/dt)_{cr}$	$T_{vj} = 125^\circ \text{C}$ $T_{vj} = 125^\circ \text{C}$; $f = 50 \text{ Hz}$	max. 500 max. 50	V/μs A/μs
t_q I_H I_L	$T_{vj} = 125^\circ \text{C}$; typ. $T_{vj} = 25^\circ \text{C}$; typ. / max. $T_{vj} = 25^\circ \text{C}$; $R_G = 33 \Omega$	80 50 / 150 100 / 300	μs mA mA
V_{GT} I_{GT} V_{GD} I_{GD}	$T_{vj} = 25^\circ \text{C}$; d.c. $T_{vj} = 25^\circ \text{C}$; d.c. $T_{vj} = 125^\circ \text{C}$; d.c. $T_{vj} = 125^\circ \text{C}$; d.c.	min. 2 min. 100 max. 0,25 max. 3	V mA V mA
$R_{th(j-c)}$ $R_{th(c-s)}$ $R_{th(j-a)}$ T_{vj} T_{stg}	per thyristor / diode total total total 2) T_{vj} T_{stg}	1,8 0,45 0,1 15 - 40 ... + 125 - 40 ... + 125	K/W K/W K/W K/W °C °C
V_{isol} M_s M_t m	a. c. 50 Hz; r.m.s.; 1 s / 1 min. case to heatsink	3600 (3000) 2 n.a. 66	V Nm Nm g
Case	SKBH	G 23	



SKBH



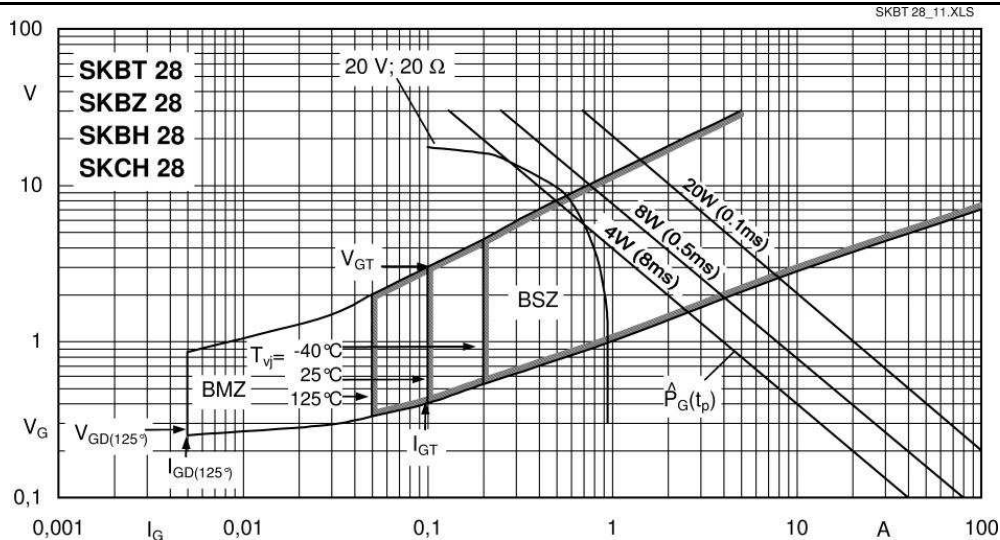
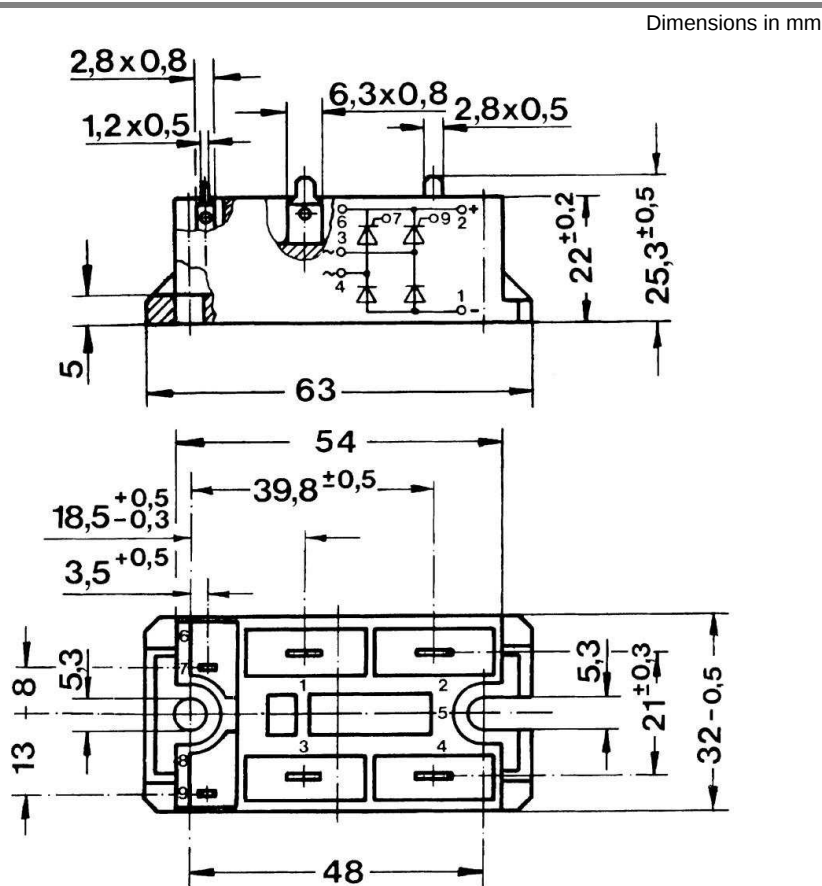


Fig. 11 Gate characteristics of a thyristor device



Case G 23

* 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 personal.