



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

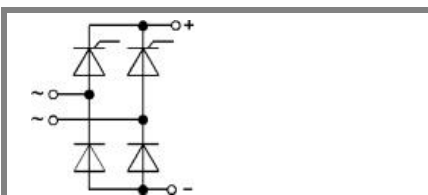
Typical Applications

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

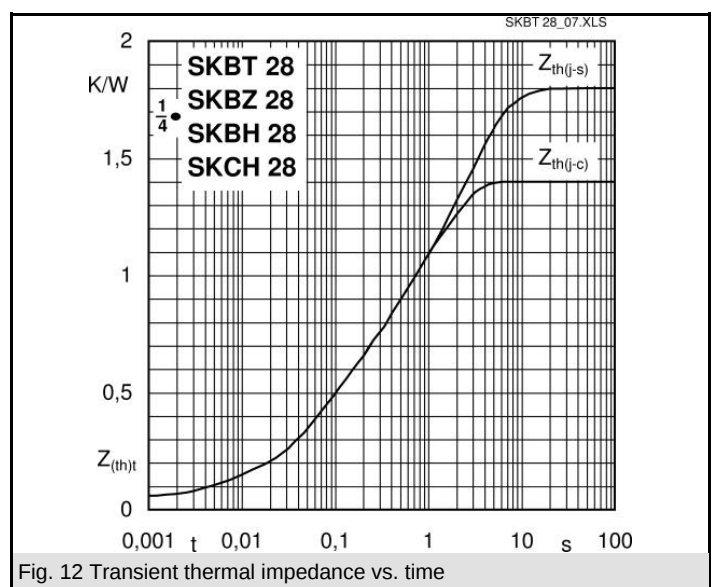
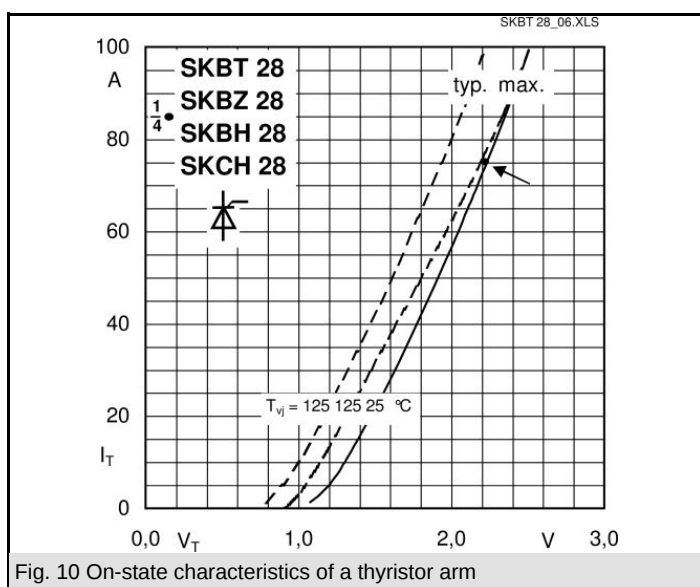
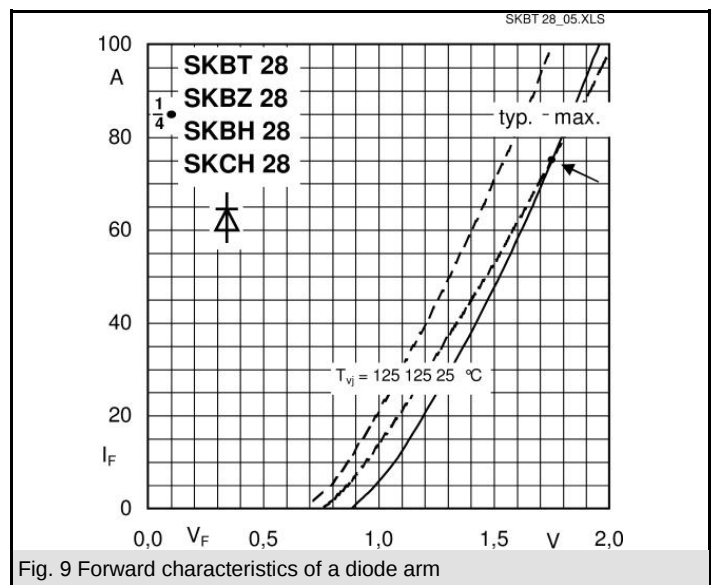
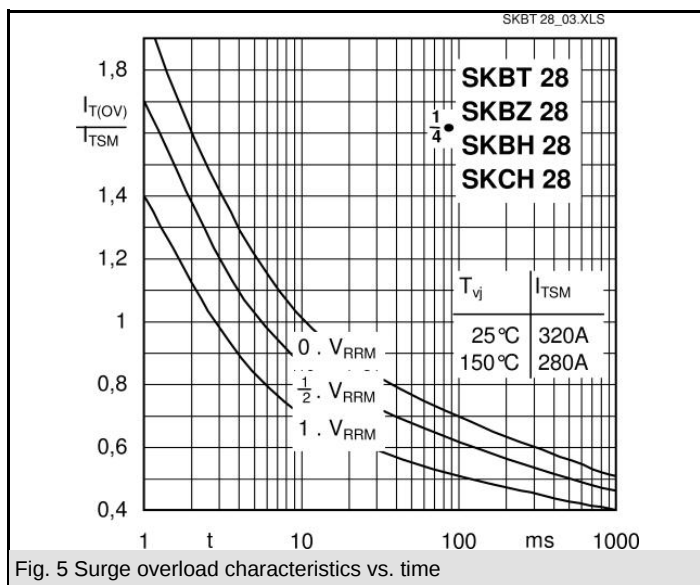
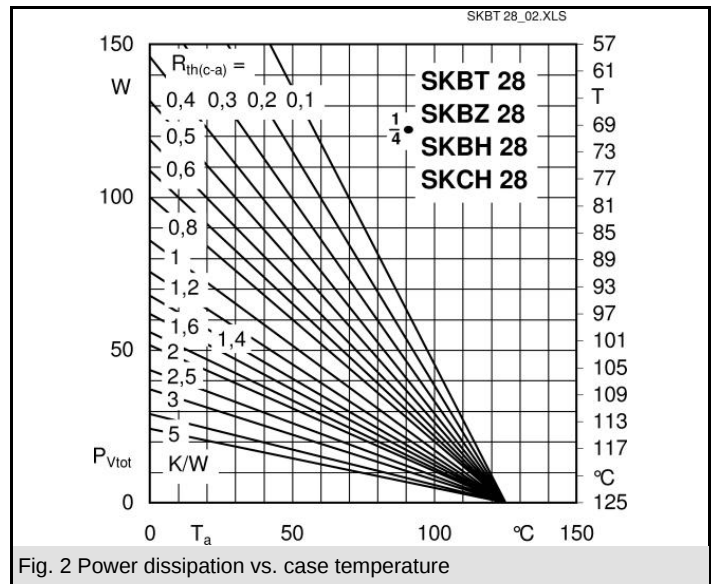
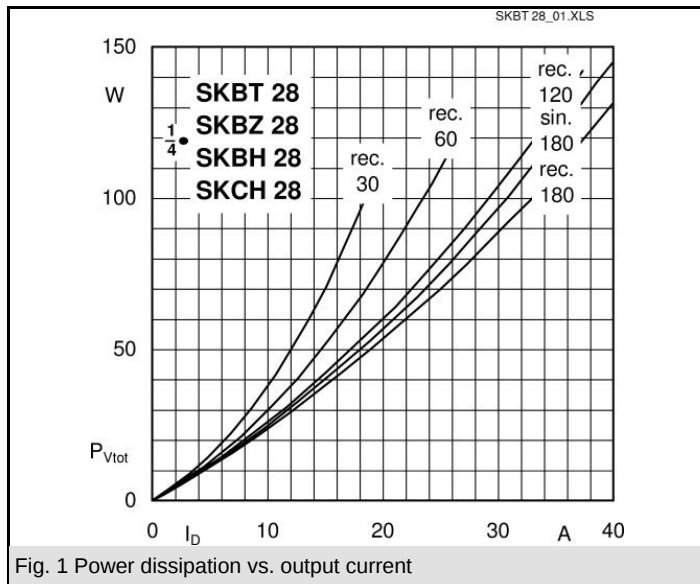
- 1) Painted metal shield of minimum 250 x 250 x 1 mm: $R_{th(c-a)} = 1,85 \text{ K/W}$
- 2) Freely suspended or mounted on insulator

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_q I_H I_L	$T_{vj} = 125^\circ \text{C}$ $T_{vj} = 125^\circ \text{C}$; $f = 50 \text{ Hz}$ $T_{vj} = 125^\circ \text{C}$; typ. $T_{vj} = 25^\circ \text{C}$; typ. / max. $T_{vj} = 25^\circ \text{C}$; $R_G = 33 \Omega$	max. 500 max. 50 80 50 / 150 100 / 300	V/μs A/μs 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



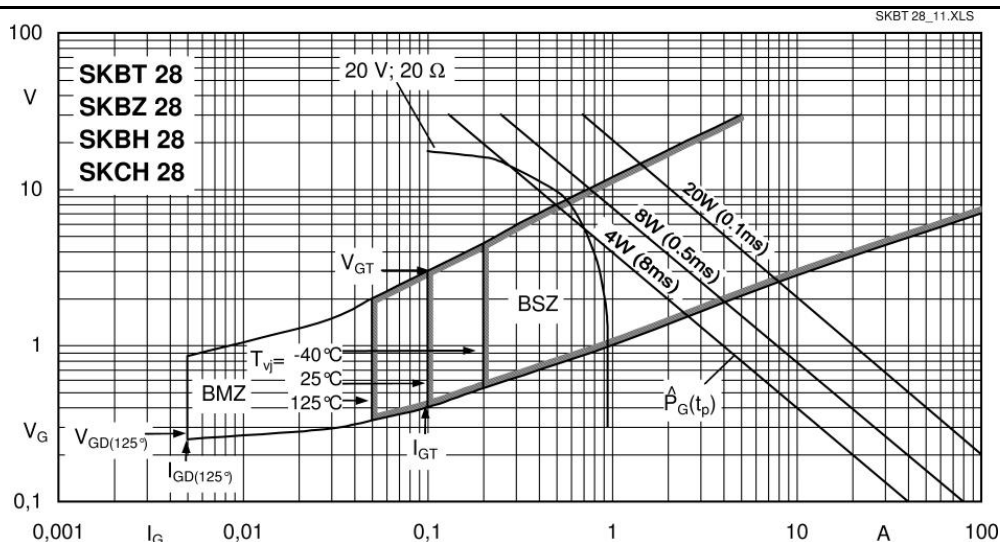
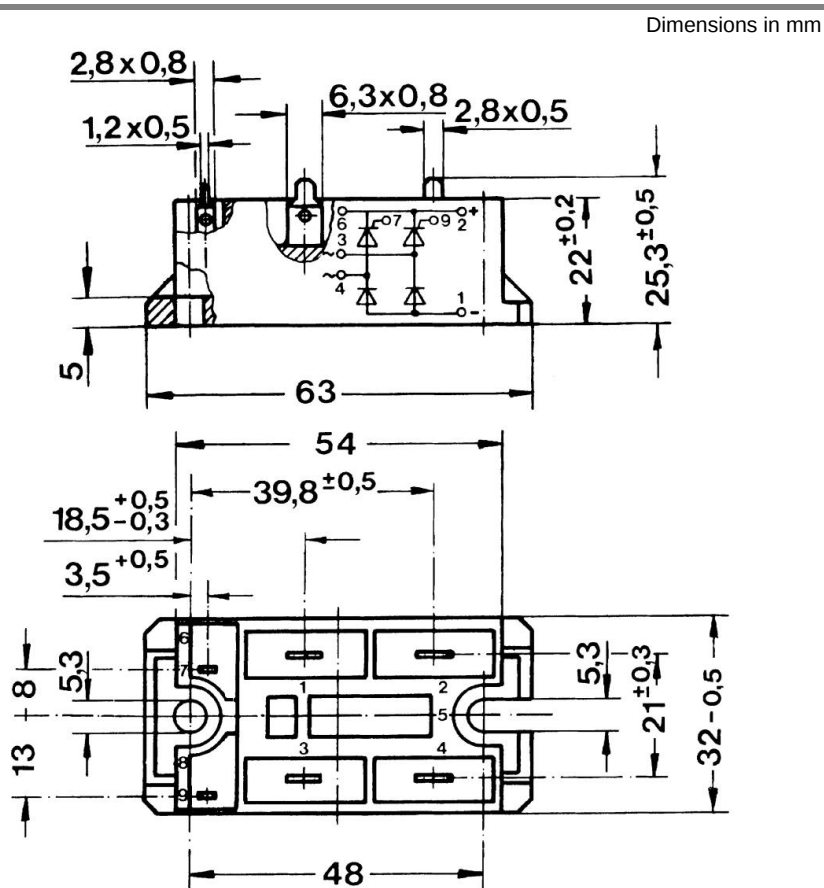


Fig. 11 Gate characteristics of a thyristor device



Case G 23

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