

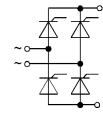
$V_{DRM}$ $V_{RSM}$ $V_{RRM}$	$I_D$ ( $T_{case} = 89\text{ °C}$ , full conduction) 28 A			
400 V	–	–	SKBZ 28/04	SKCH 28/04
600 V	SKBT 28/06	SKBH 28/06	SKBZ 28/06	SKCH 28/06
800 V	SKBT 28/08	SKBH 28/08	SKBZ 28/08	SKCH 28/08
1200 V	SKBT 28/12	SKBH 28/12	SKBZ 28/12	SKCH 28/12
1400 V	SKBT 28/14	SKBH 28/14	SKBZ 28/14	SKCH 28/14

## SEMIPONT® 1 Controllable Bridge Rectifiers

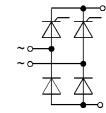
SKBT 28    SKBZ 28  
SKBH 28    SKCH 28



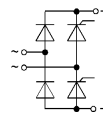
Symbol	Conditions	SKBT 28 SKBH 28	SKCH 28 SKBZ 28
$I_D$	$T_{case} = 85\text{ °C}$ , inductive load $T_{amb} = 45\text{ °C}$ , chassis <sup>1)</sup> P5A/100 P13A/125 P1A/120	30 A 13 A 15 A 16 A 23 A	
$I_{TSM}, I_{FSM}$	$T_{vj} = 25\text{ °C}$ , 10 ms $T_{vj} = 125\text{ °C}$ , 10 ms	320 A 280 A	
$i^2t$	$T_{vj} = 25\text{ °C}$ , 8,3...10 ms $T_{vj} = 125\text{ °C}$ , 8,3...10 ms	510 A <sup>2</sup> s 390 A <sup>2</sup> s	
$(di/dt)_{cr}$	$T_{vj} = 125\text{ °C}$ , 10 ms	50 A/ $\mu$ s	
$(dv/dt)_{cr}$	$T_{vj} = 125\text{ °C}$ , $\frac{2}{3} V_{DRM}$	500 V/ $\mu$ s	
$I_H$	$T_{vj} = 25\text{ °C}$ , typ./max.	50 mA/150 mA	
$I_L$	$T_{vj} = 25\text{ °C}$ , typ./max.	100 mA/300 mA	
$V_T$	$T_{vj} = 25\text{ °C}$ ; $I_T = 75\text{ A}$	2,25 V	
$V_{T(TO)}$	$T_{vj} = 125\text{ °C}$	1,0 V	
$r_T$	$T_{vj} = 125\text{ °C}$	16 m $\Omega$	
$I_D$	$T_{vj} = 125\text{ °C}$ ; $V_{DRM}$ , $V_{RRM}$	8 mA	
$V_{GT}$	$T_{vj} = 25\text{ °C}$ ; $V_D = 6\text{ V}$	2 V	
$I_{GT}$	$T_{vj} = 25\text{ °C}$ ; $V_D = 6\text{ V}$	100 mA	
$V_{GD}$	$T_{vj} = 125\text{ °C}$ ; $V_D = 6\text{ V}$	0,25 V	
$R_{thjc}$	per thyristor/diode	1,8 °C/W	
	total	0,45 °C/W	
$R_{thch}$	total	0,1 °C/W	
$R_{thja}$	total <sup>2)</sup>	15 °C/W	
$T_{vj}$ , $T_{stg}$		– 40...+ 125 °C	
$V_{isol}$	a.c. 50...60 Hz; r.m.s.; 1 s / 1 min	3600 V~ / 3000 V~	
$M_1$	case to heatsink; SI units/US units	2 Nm/18 lb. in. $\pm$ 15 %	
$w$		66 g	
Case		SKBT: G 22 SKBH: G 23	SKBZ: G 24 SKCH: G 25



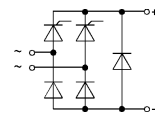
SKBT



SKBH



SKBZ



SKCH

### 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 rectifiers
- DC power supplies
- DC motor controllers
- DC motor field controllers

<sup>1)</sup> Painted metal sheet of minimum 250 x 250 x 1 mm<sup>3</sup>:  $R_{thca} = 1,85\text{ °C/W}$

<sup>2)</sup> Freely suspended or mounted on an insulator

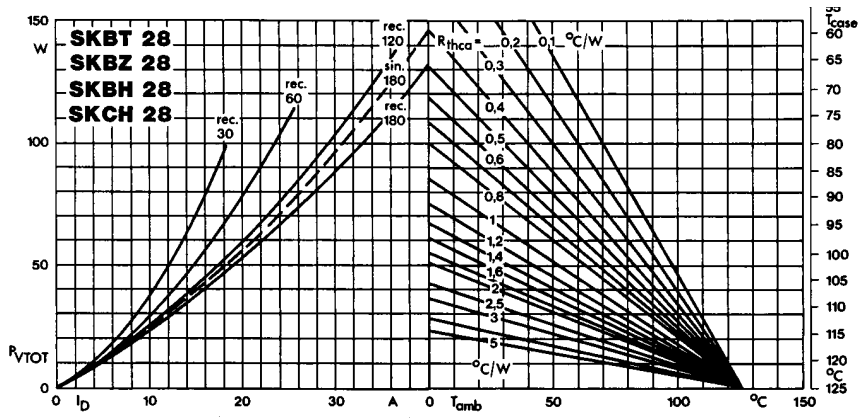


Fig. 4 Power dissipation vs. output current and case temperature

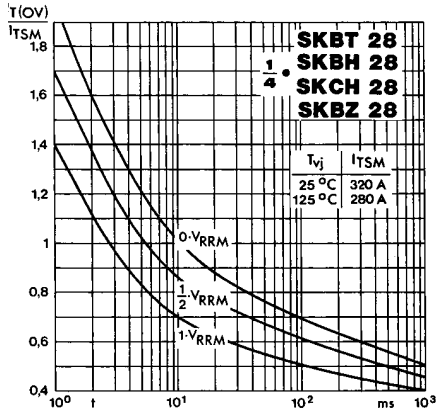


Fig. 5 Surge overload current vs. time

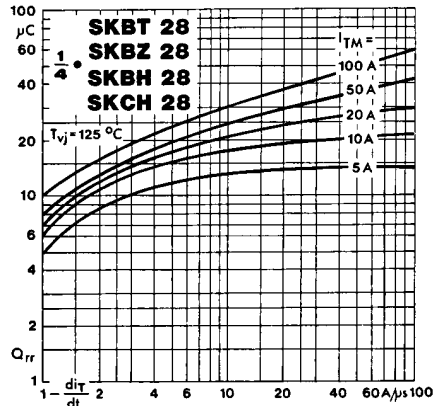


Fig. 8 Recovered charge vs. current decrease

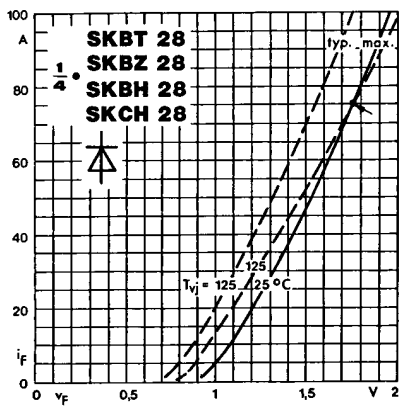


Fig. 9 Forward characteristics of a single diode

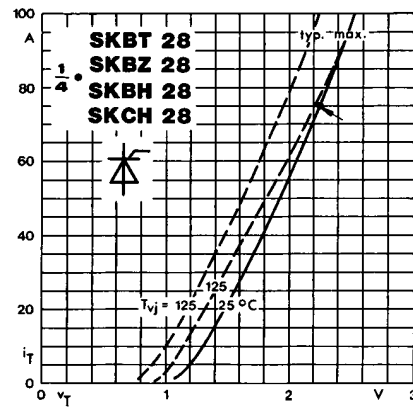


Fig. 10 On-state characteristics of a single thyristor

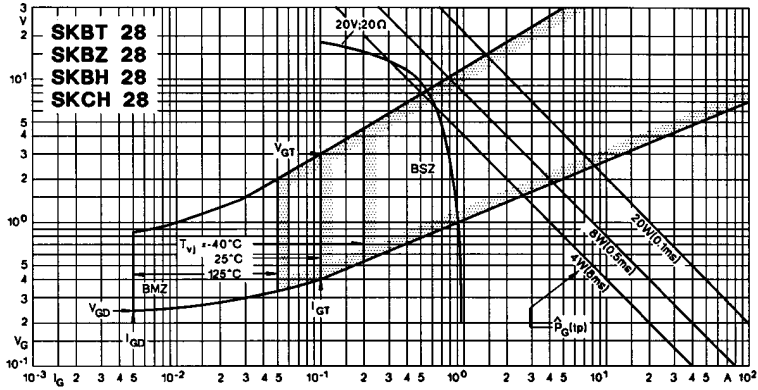


Fig. 11 Gate trigger characteristics

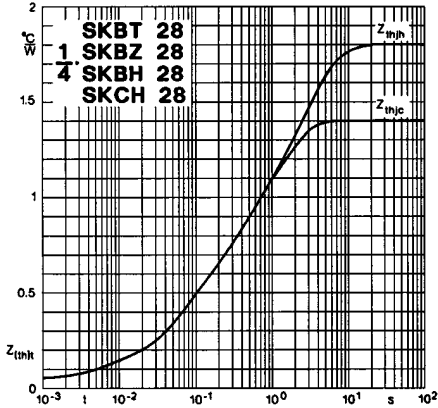
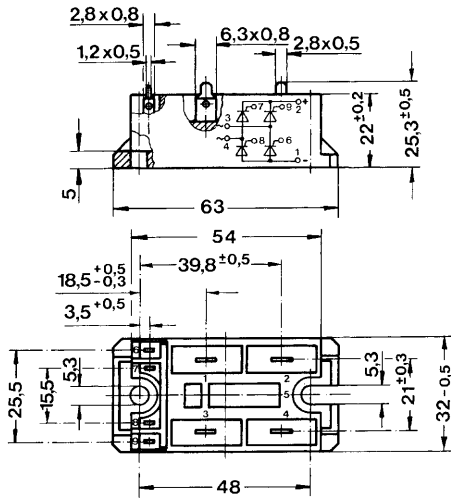
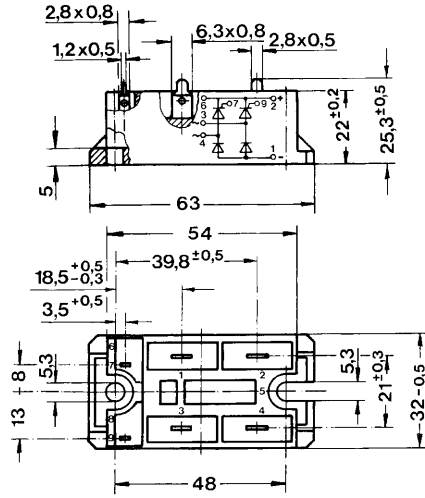


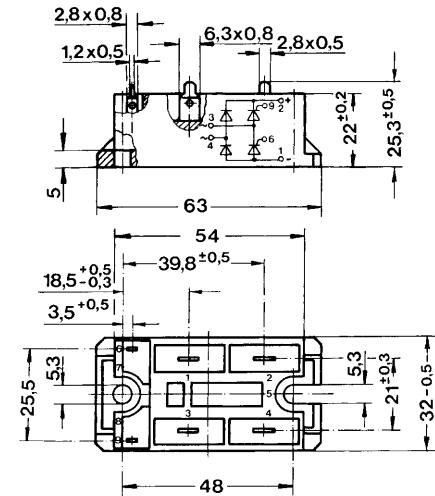
Fig. 12 Transient thermal impedance vs. time

**SKBT 28**Case G 22  
SEMIPONT<sup>®</sup> 1

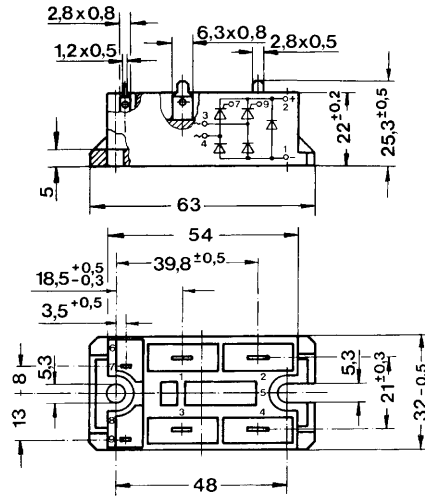
Dimensions in mm

**SKBH 28**Case G 23  
SEMIPONT<sup>®</sup> 1

Dimensions in mm

**SKBZ 28**Case G 24  
SEMIPONT<sup>®</sup> 1

Dimensions in mm

**SKCH 28**Case G 25  
SEMIPONT<sup>®</sup> 1

Dimensions in mm