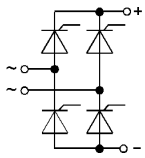
SEMIPONT® 1
Controllable Bridge Rectifiers

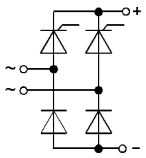
SKBT 28 SKBZ 28
SKBH 28 SKCH 28

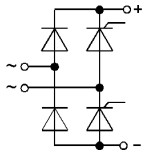
V_{DRM} V_{RSM} V_{RRM}	I_D (T_{case} = 89 °C, full conduction) 28 A			
400 V	–	–	**SKBZ 28/04**	**SKCH 28/04**
600 V	**SKBT 28/06**	**SKBH 28/06**	**SKBZ 28/06**	**SKCH 28/06**
800 V	**SKBT 28/08**	**SKBH 28/08**	**SKBZ 28/08**	**SKCH 28/08**
1200 V	**SKBT 28/12**	**SKBH 28/12**	**SKBZ 28/12**	**SKCH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

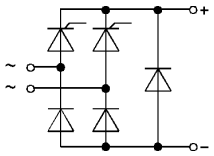
Symbol	Conditions	SKBT 28 SKBH 28	SKCH 28 SKBZ 28
I_D	T_{case} = 85 °C, inductive load	30 A	
	T_{amb} = 45 °C, chassis[1]	13 A	
	P5A/100	15 A	
	P13A/125	16 A	
	P1A/120	23 A	
I_{TSM},I_{FSM}	T_{vj} = 25 °C, 10 ms	320 A	
	T_{vj} = 125 °C, 10 ms	280 A	
i^2t	T_{vj} = 25 °C, 8,3...10 ms	510 A^2s	
	T_{vj} = 125 °C, 8,3...10 ms	390 A^2s	
$(di/dt)_{cr}$	T_{vj} = 125 °C, 10 ms	50 A/µs	
$(dv/dt)_{cr}$	T_{vj} = 125 °C, $^2/_3$ V_{DRM}	500 V/µs	
I_H	T_{vj} = 25 °C, typ./max.	50 mA/150 mA	
I_L	T_{vj} = 25 °C, typ./max.	100 mA/300 mA	
V_T	T_{vj} = 25 °C; I_T = 75 A	2,25 V	
$V_{T(TO)}$	T_{vj} = 125 °C	1,0 V	
r_T	T_{vj} = 125 °C	16 mΩ	
I_D	T_{vj} = 125 °C; V_{DRM} , V_{RRM}	8 mA	
V_{GT}	T_{vj} = 25 °C; V_D = 6 V	2 V	
I_{GT}	T_{vj} = 25 °C; V_D = 6 V	100 mA	
V_{GD}	T_{vj} = 125 °C; V_D = 6 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[2]	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. ± 15 %	
w		66 g	
Case		SKBT: G 22 SKBH: G 23	SKBZ: G 24 SKCH: G 25

[1] Painted metal sheet of minimum 250 x 250 x 1 mm^3: R_{thca} = 1,85 °C/W
[2] Freely suspended or mounted on an insulator


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

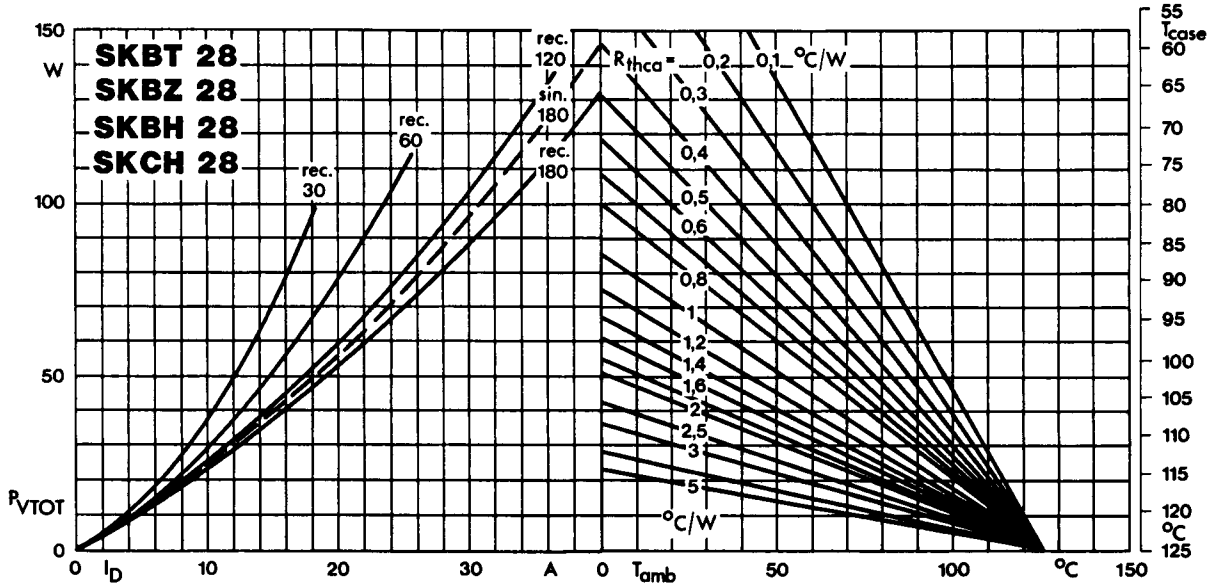


Fig. 4 Power dissipation vs. output current and case temperature

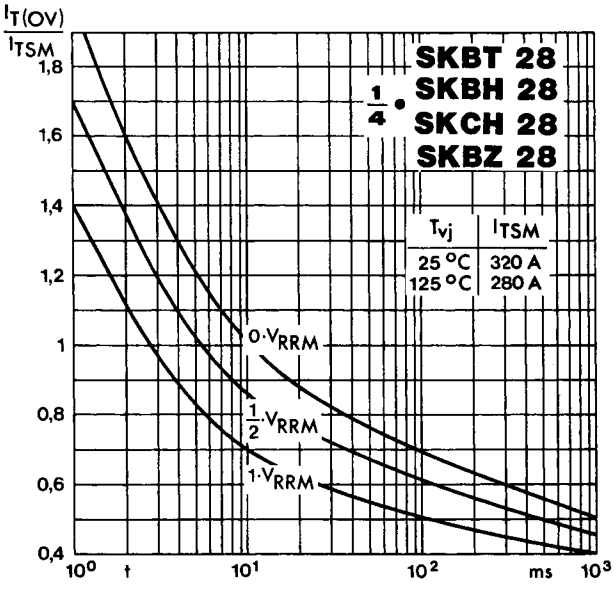


Fig. 5 Surge overload current vs. time

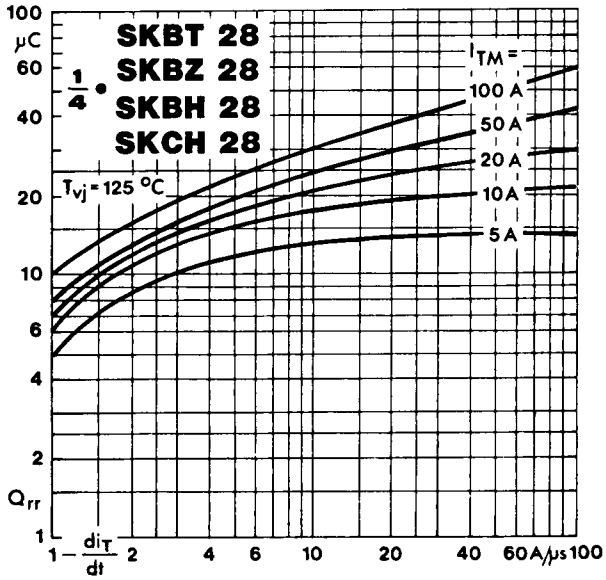


Fig. 8 Recovered charge vs. current decrease

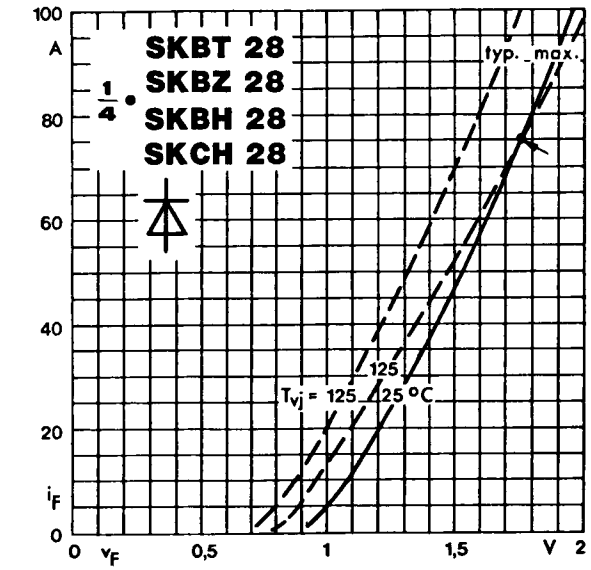


Fig. 9 Forward characteristics of a single diode

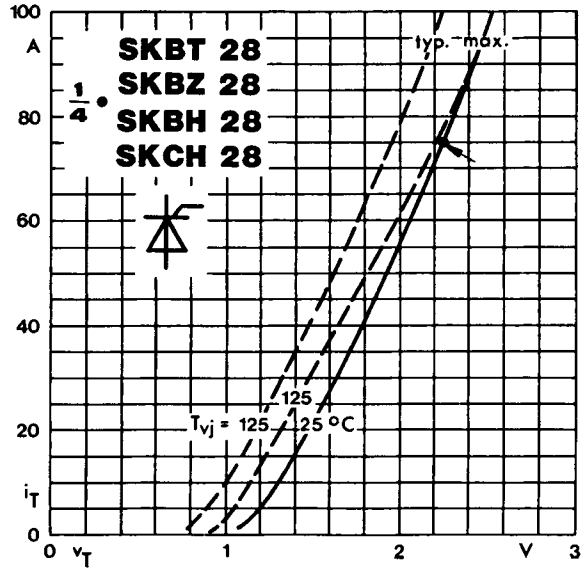


Fig. 10 On-state characteristics of a single thyristor

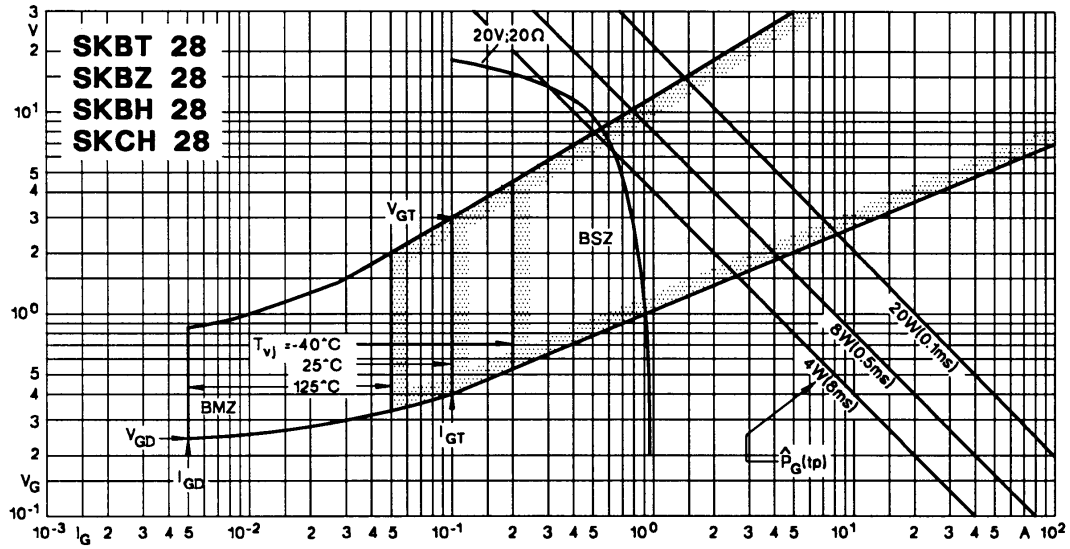


Fig. 11 Gate trigger characteristics

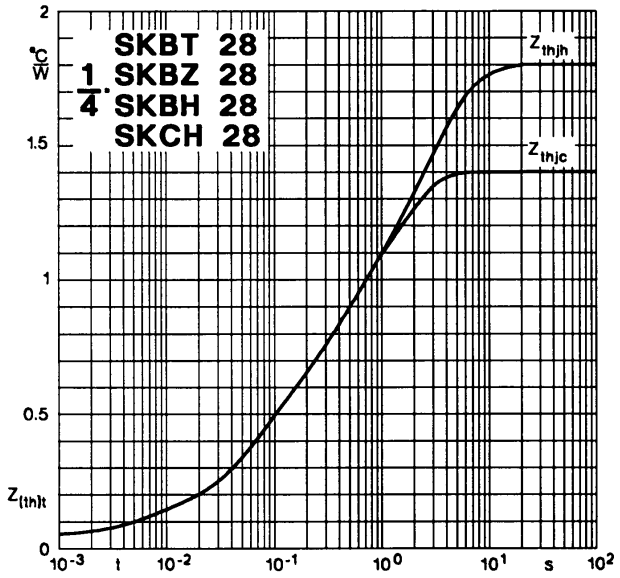
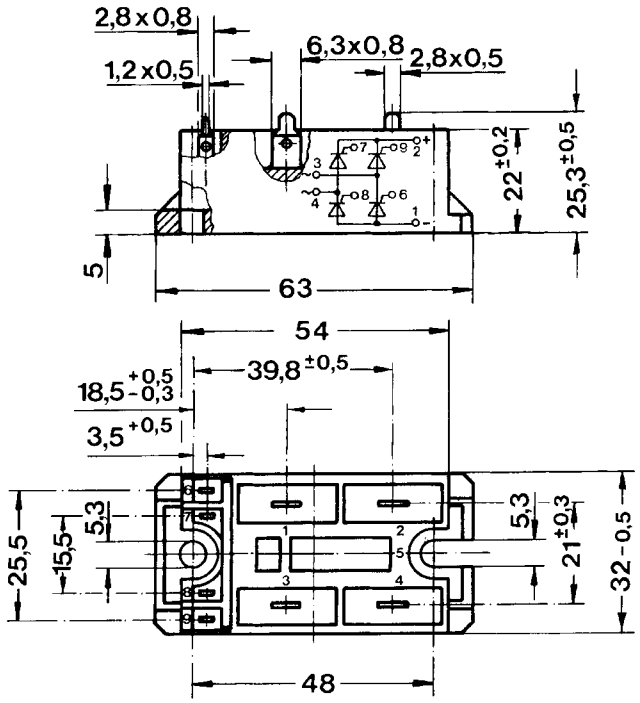


Fig. 12 Transient thermal impedance vs. time

SKBT 28

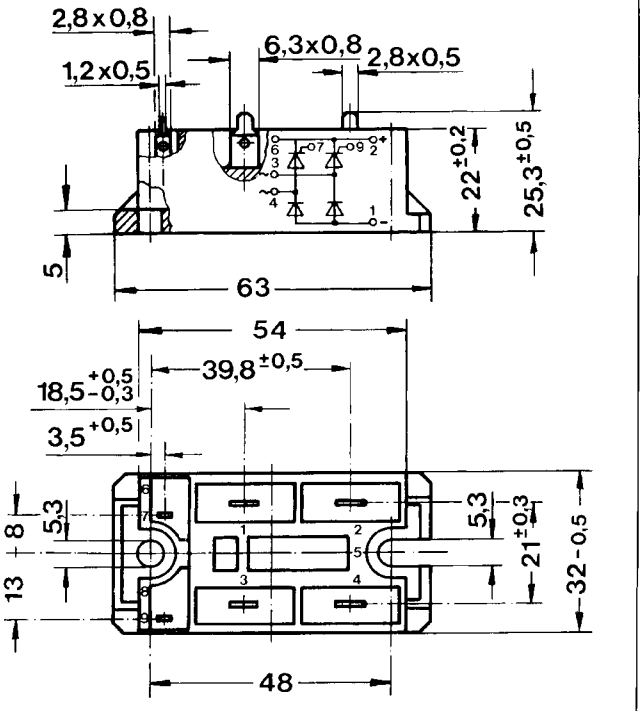
Case G 22
SEMIPONT® 1



Dimensions in mm

SKBH 28

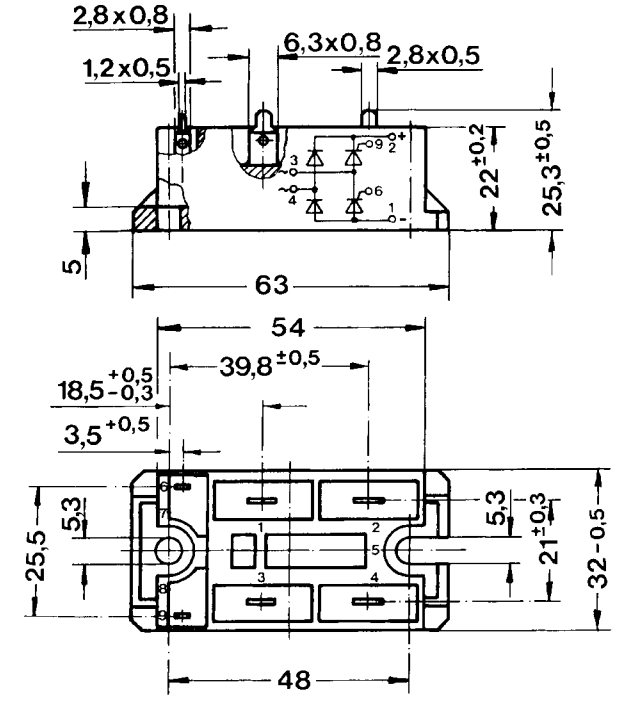
Case G 23
SEMIPONT® 1



Dimensions in mm

SKBZ 28

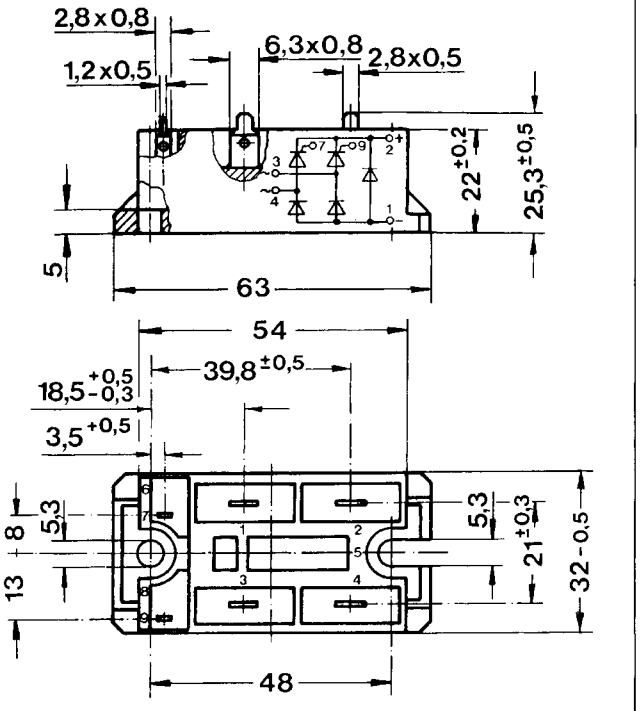
Case G 24
SEMIPONT® 1



Dimensions in mm

SKCH 28

Case G 25
SEMIPONT® 1



Dimensions in mm