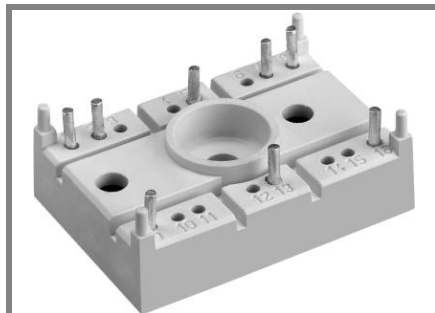


# SK 55 B 12 F



SEMITOP® 2

## Bridge Rectifier

### SK 55 B 12 F

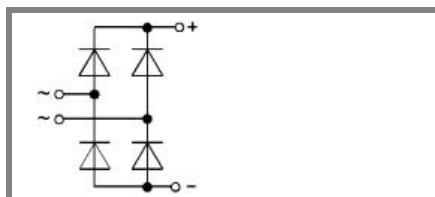
Preliminary Data

### Features

- Compact design
- One screw mounting
- Heat transfer and insulation through direct copper bonded aluminium oxide ceramic (DCB)
- Fast and soft recovery CAL (Controlled Axial Lifetime) diode
- UL recognized, file no. E 63 532

### Typical Applications

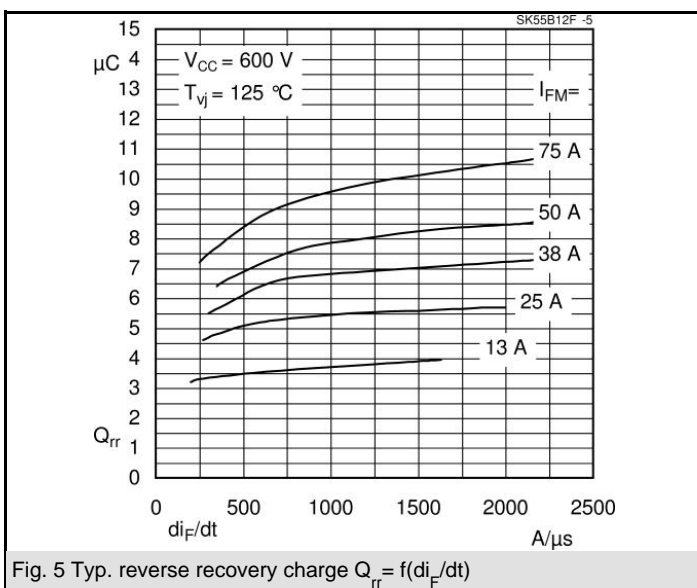
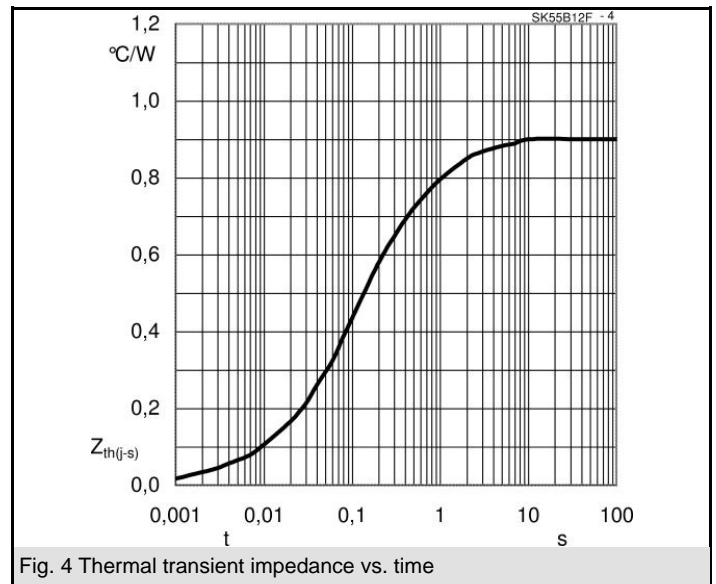
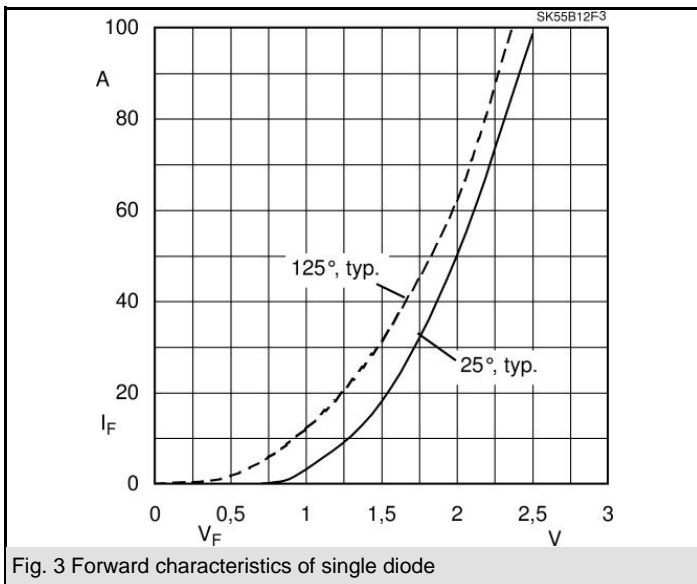
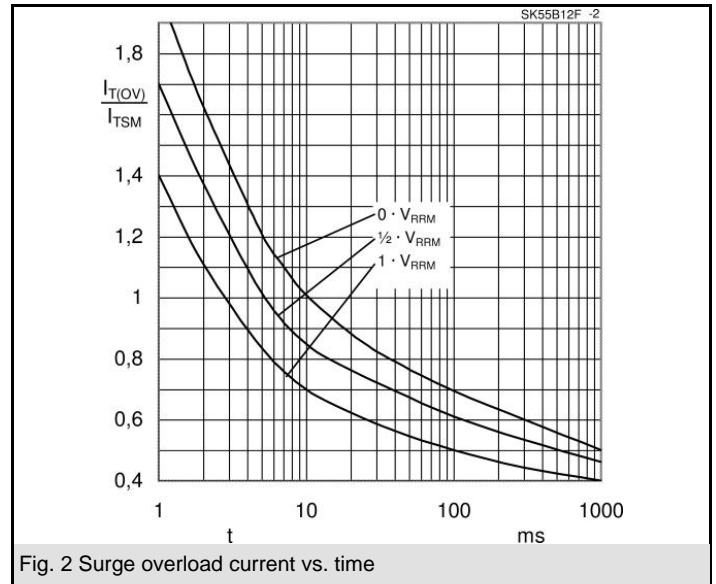
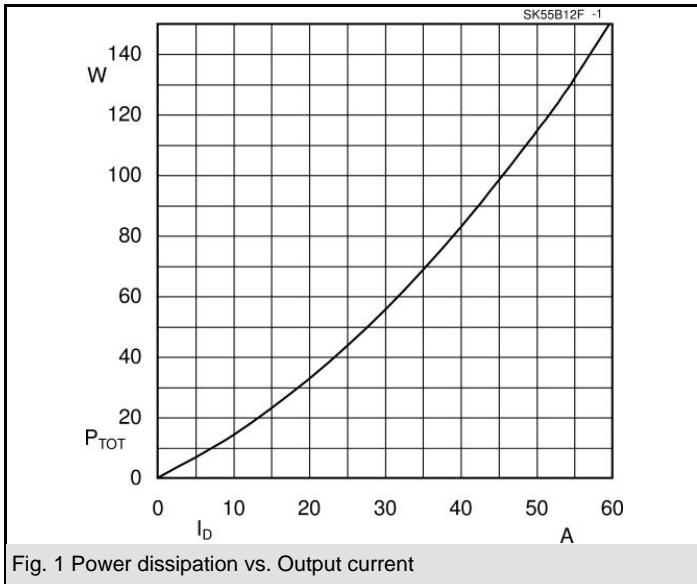
- General power switching applications
- UPS
- SMPS



B

$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_D = 57$ A (full conduction) ( $T_s = 80$ °C)
	1200	SK 55 B 12 F

Symbol	Conditions	Values	Units
$I_D$	$T_s = 80$ °C	57	A
$I_{RRM}$	$T_{vj} = 125$ °C (See Fig. 6)	typ. 40	A
$Q_{rr}$	$T_{vj} = 25$ (125) °C (See Fig. 6)	typ. 3 (8)	μC
$I_R$	$T_{vj} = 25$ (150) °C; $V_R = V_{RRM}$	0,2 (4)	mA
$I_{FSM}$	$T_{vj} = 150$ °C; 10 ms	550	A
$i^2t$	$T_{vj} =$ °C; ms		A
	$T_{vj} = 150$ °C; 10 ms	1500	A <sup>2</sup> s
	$T_{vj} =$ °C; ms		A <sup>2</sup> s
$V_F$	$T_{vj} = 25$ °C; $I_F = 50$ A	max. 2,5	V
$V_{(TO)}$	$T_{vj} = 125$ °C	max. 1,2	V
$r_T$	$T_{vj} = 125$ °C	max. 22	mΩ
$I_{RD}$	$T_{vj} =$ °C; $V_{DD} = V_{DRM}$ ; $V_{RD} = V_{RRM}$		mA mA
$R_{th(j-s)}$	per diode per module	0,9 0,23	K/W K/W
$T_{solder}$	terminals, 10s	260	°C
$T_{vj}$		-40...+150	°C
$T_{stg}$		-40...+125	°C
$V_{isol}$	a. c. 50 Hz; r.m.s.; 1 s / 1 min.	3000 ( 2500 )	V
$M_s$	mounting torque to heatsink	2	Nm
$M_t$			
m	approx. weight	19	g
Case	SEMITOP® 2	T 6	

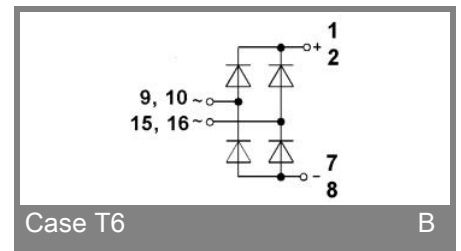
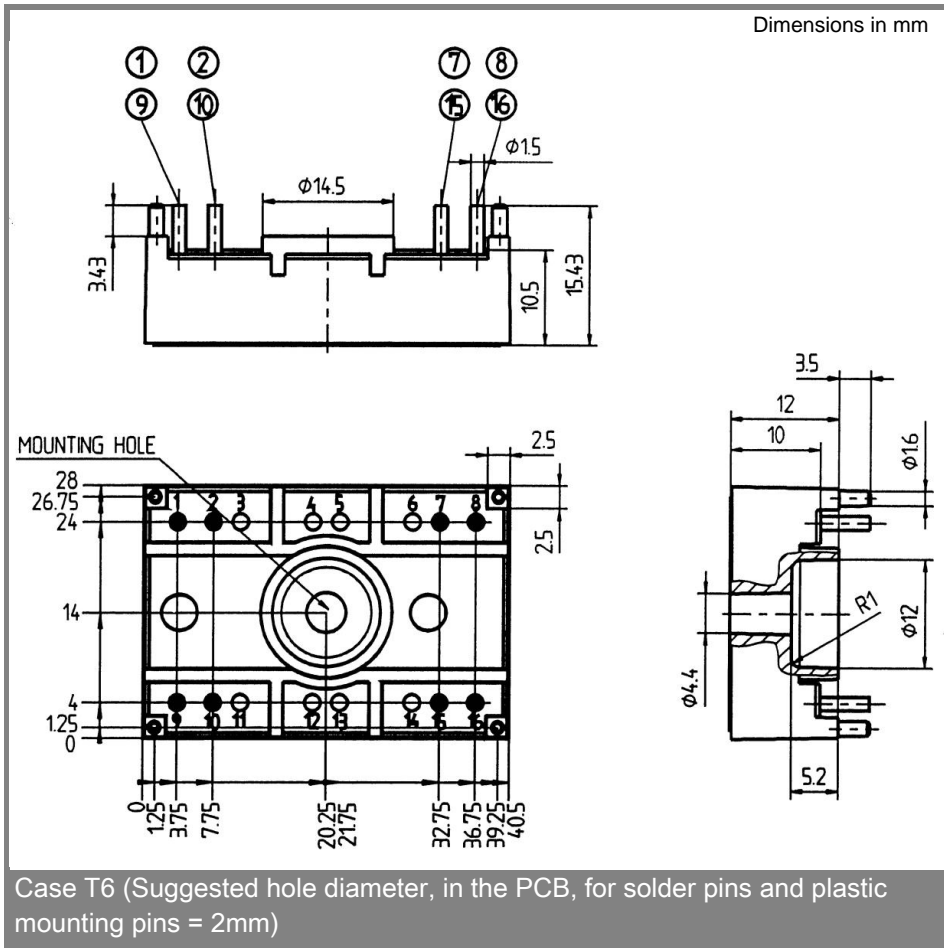


**Measurement conditions for switching parameters:**

**$I_F = 50A$**   
 **$V_R = 600V$**   
 **$-di/dt = 800A/\mu s$**

Fig. 6

# SK 55 B 12 F



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