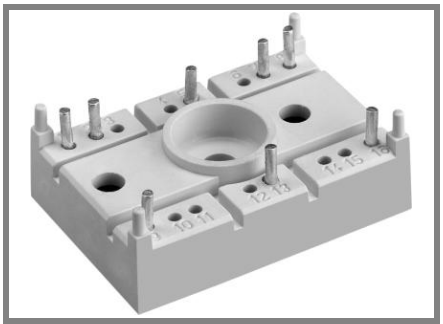
SK 50 B



SEMITOP® 2

Bridge Rectifier

SK 50 B

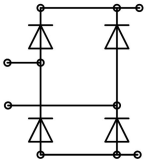
Preliminary Data

Features

- Compact design
- One screw mounting
- Heat transfer and insulation through direct copper bonded aluminium oxide ceramic (DCB)
- Up 1600V reverse voltage
- High surge current
- Glass passived diode chips
- UL recognized, file no. E 63 532

Typical Applications

- Input rectifier for power supplies
- Rectifier



B

V_{RSM} V	V_{RRM}, V_{DRM} V	I_D = 51 A (full conduction) (T_s = 80 °C)
800	800	SK 50 B 08
1200	1200	SK 50 B 12
1600	1600	SK 50 B 16

Symbol	Conditions	Values	Units
I_D	T_S = 80 °C	51	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	370	A
	T_{vj} = 125 °C; 10 ms	270	A
i²t	T_{vj} = 25 °C; 8,3...10 ms	685	A²s
	T_{vj} = 125 °C; 8,3...10 ms	365	A²s
V_F	T_{vj} = 25 °C; I_F = 25 A	max. 1,25	V
$V_{(TO)}$	T_{vj} = 125 °C	max. 0,8	V
r_T	T_{vj} = 125 °C	max. 13	mΩ
I_{RD}	T_{vj} = 150 °C; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}	max. 4	mA
			mA
$R_{th(j-s)}$	per diode	1,7	K/W
	per module	0,43	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	

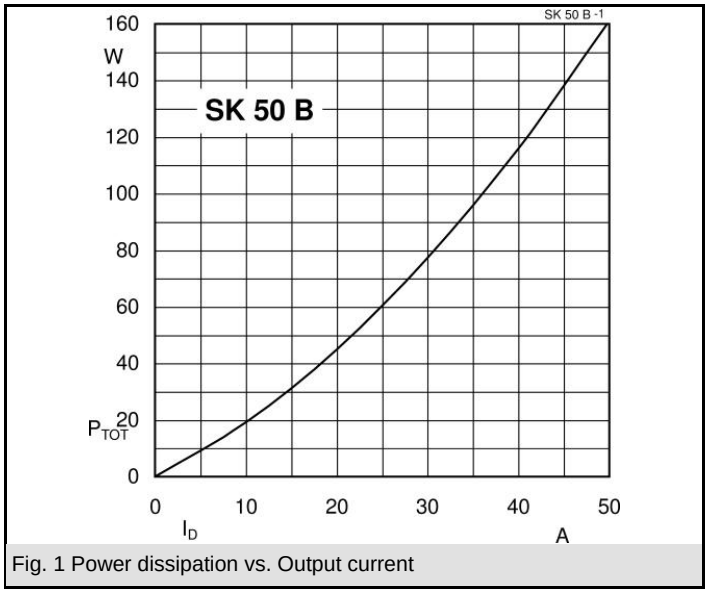


Fig. 1 Power dissipation vs. Output current

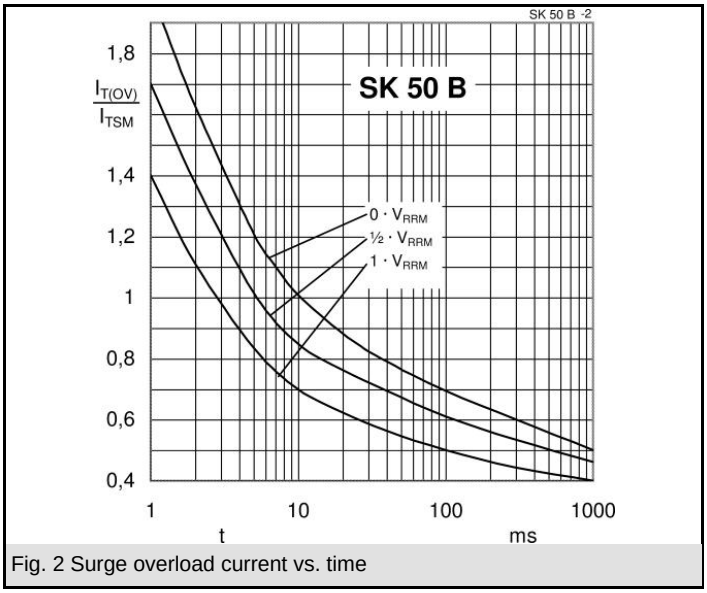


Fig. 2 Surge overload current vs. time

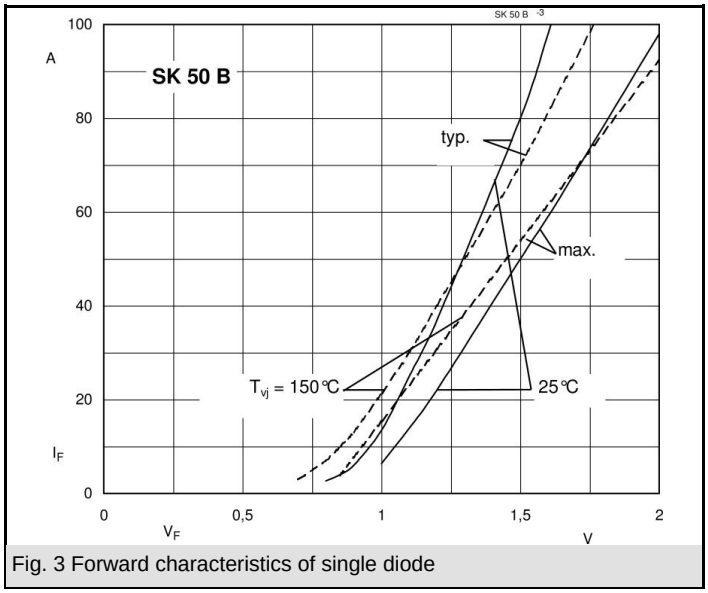


Fig. 3 Forward characteristics of single diode

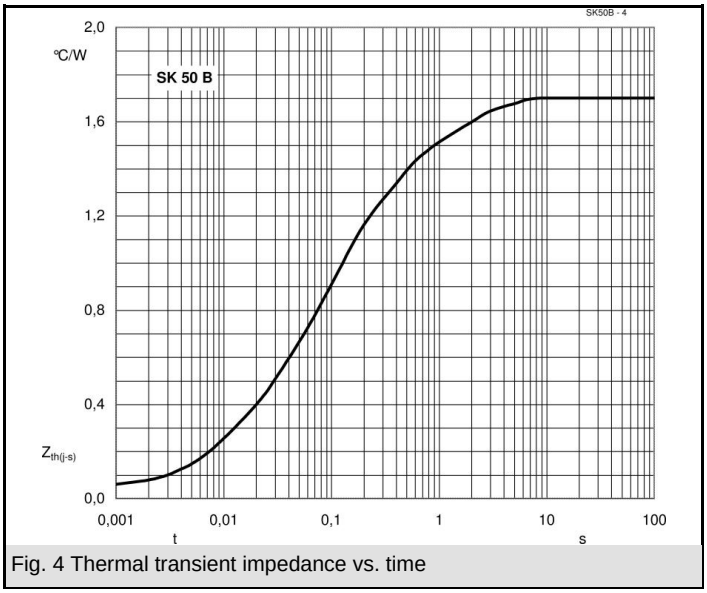


Fig. 4 Thermal transient impedance vs. time

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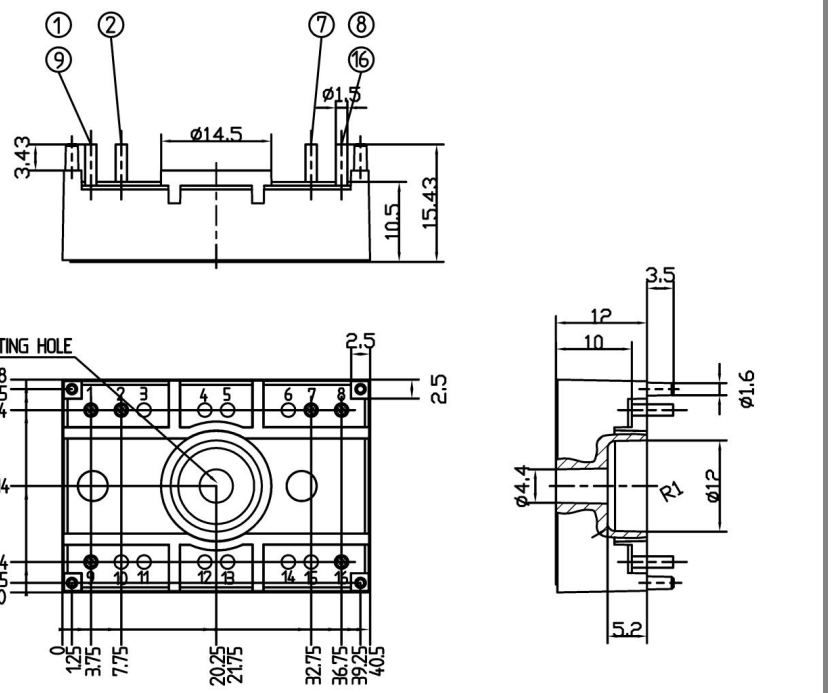
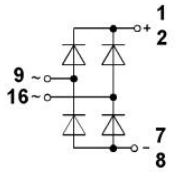
Dimensions in mm



Case T6 (Suggested hole diameter, in the PCB, for solder pins and plastic mounting pins = 2mm)



Case T6 B

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