

SEMITOP® 2

Bridge Rectifier

SK 50 B

Preliminary Data

Features

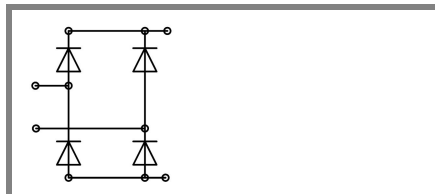
- Compact design
- One screw mounting
- Heat transfer and insulation through direct copper bonded aluminium oxide ceramic (DCB)
- Up 1600V reverse voltage
- High surge current
- Glass passivated diode chips
- UL recognized, file no. E 63 532

Typical Applications

- Input rectifier for power supplies
- Rectifier

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 $T_{vj} = 125$ °C; 10 ms	370 270	A A
i^2t	$T_{vj} = 25$ °C; 8,3...10 ms $T_{vj} = 125$ °C; 8,3...10 ms	685 365	A²s A²s
V_F $V_{(TO)}$ r_T I_{RD}	$T_{vj} = 25$ °C; $I_F = 25$ A $T_{vj} = 125$ °C $T_{vj} = 125$ °C $T_{vj} = 150$ °C; $V_{DD} = V_{DRM}$; $V_{RD} = V_{RRM}$	max. 1,25 max. 0,8 max. 13 max. 4	V V mΩ mA mA
$R_{th(f-s)}$	per diode per module	1,7 0,43	K/W K/W
T_{solder} T_{vj} T_{stg}	terminals, 10s	260 -40...+150 -40...+125	°C °C °C
V_{isol} M_s M_t m	a. c. 50 Hz; r.m.s.; 1 s / 1 min. mounting torque to heatsink approx. weight	3000 (2500) 2 19	V Nm g
Case	SEMITOP® 2	T 6	



B

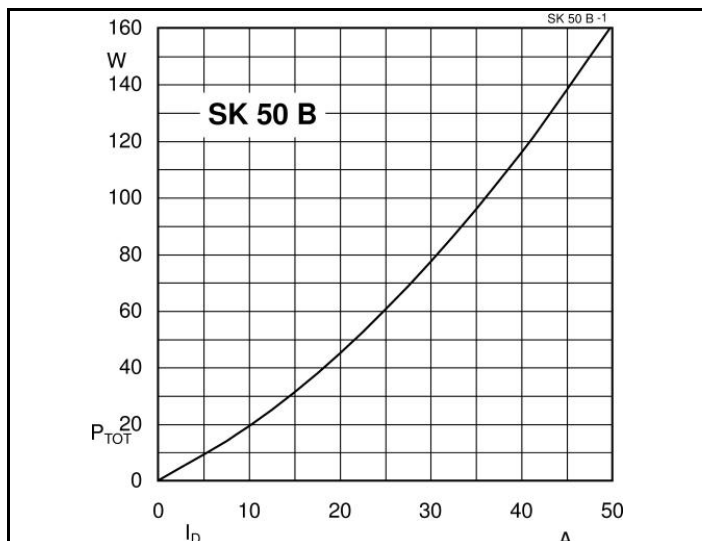


Fig. 1 Power dissipation vs. Output current

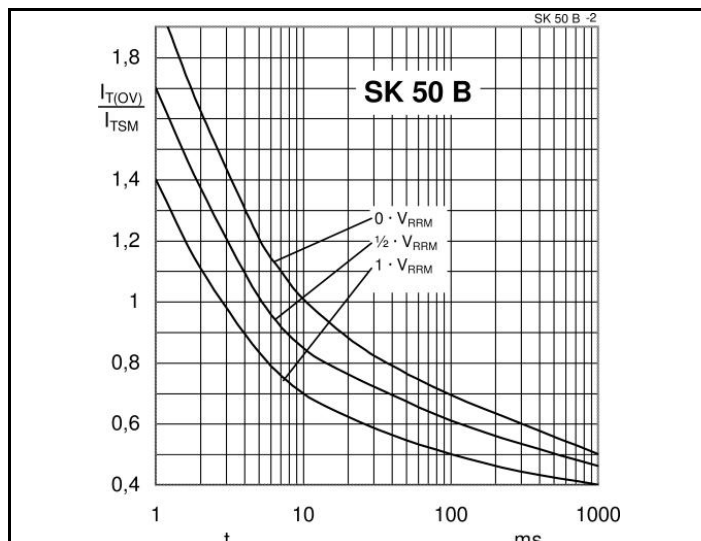


Fig. 2 Surge overload current vs. time

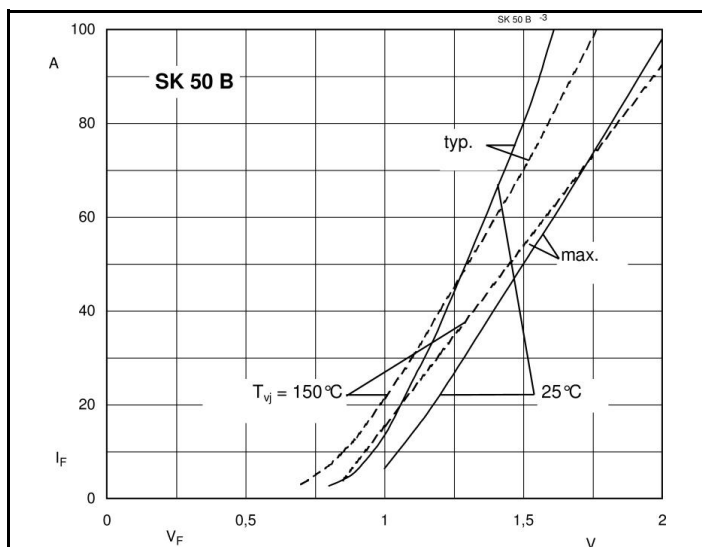


Fig. 3 Forward characteristics of single diode

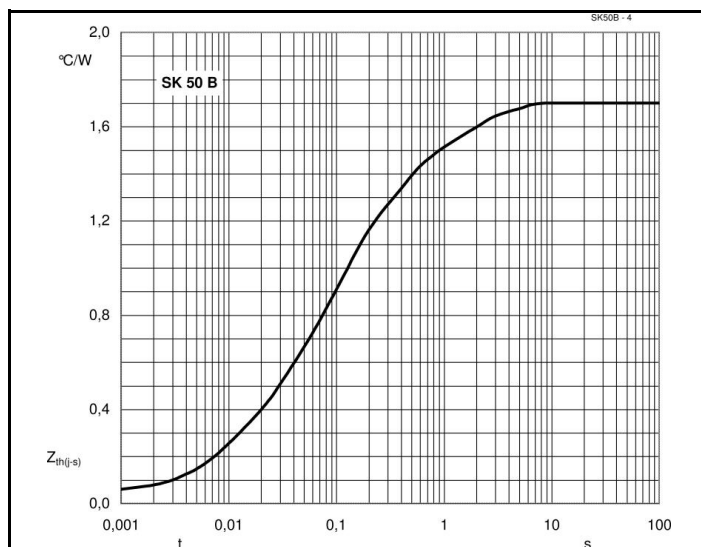
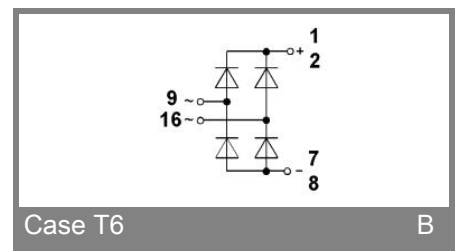
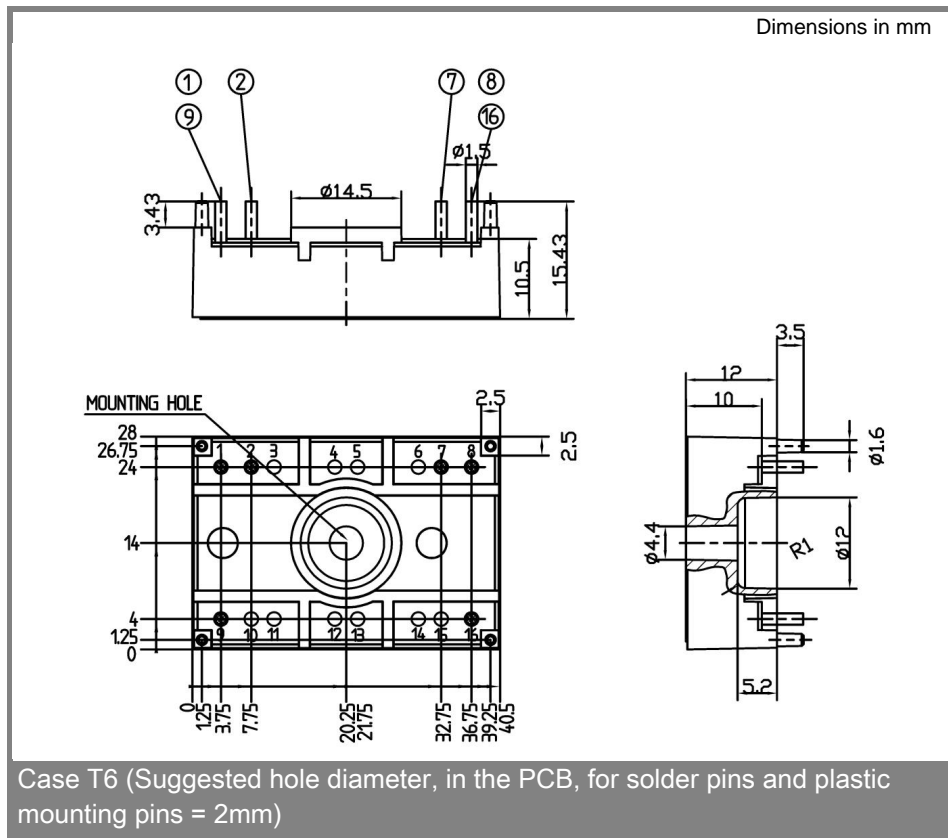


Fig. 4 Thermal transient impedance vs. time



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