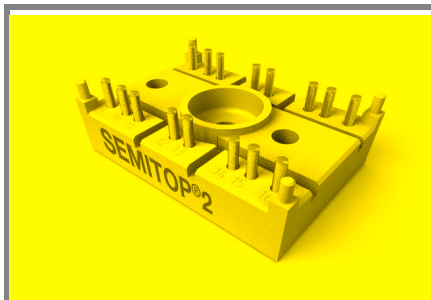




SEMITOP® 2

Bridge Rectifier

SK 70 B

Preliminary Data

Features

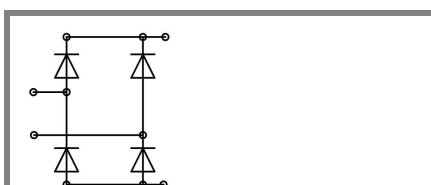
- Compact design
- One screw mounting
- Heat transfer and insulation through direct copper bonded aluminium oxide ceramic (DCB)
- Up 1600V reverse voltage
- High surge current
- Glass passivated diode chips
- UL recognized, file no. E 63 532

Typical Applications*

- Input rectifier for power supplies
- Rectifier

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_D = 68 \text{ A}$ (full conduction) ($T_s = 80 \text{ °C}$)
800	800	SK 70 B 08
1200	1200	SK 70 B 12
1600	1600	SK 70 B 16

Symbol	Conditions	Values	Units
I_D	$T_s = 80 \text{ °C}$	68	A
I_{FSM}	$T_{vj} = 25 \text{ °C}; 10 \text{ ms}$ $T_{vj} = 125 \text{ °C}; 10 \text{ ms}$	700 560	A A
i^2t	$T_{vj} = 25 \text{ °C}; 8,3...10 \text{ ms}$ $T_{vj} = 125 \text{ °C}; 8,3...10 \text{ ms}$	2450 1370	A ² s A ² s
V_F	$T_{vj} = 25 \text{ °C}; I_F = 35 \text{ A}$	max. 1,2	V
$V_{(TO)}$	$T_{vj} = 125 \text{ °C}$	max. 0,8	V
r_T	$T_{vj} = 125 \text{ °C}$	max. 11	mΩ
I_{RD}	$T_{vj} = 150 \text{ °C}; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}$	max. 4	mA mA
$R_{th(f-s)}$	per diode per module	1,2 0,3	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	



B

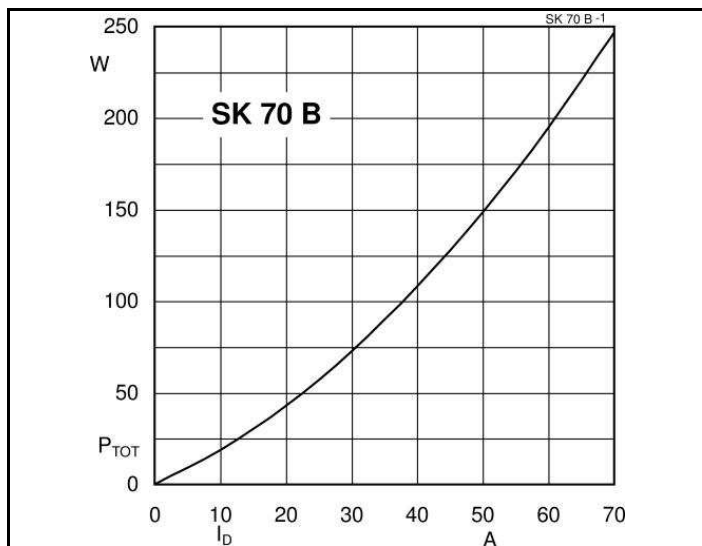


Fig. 1 Power dissipation vs. Output current

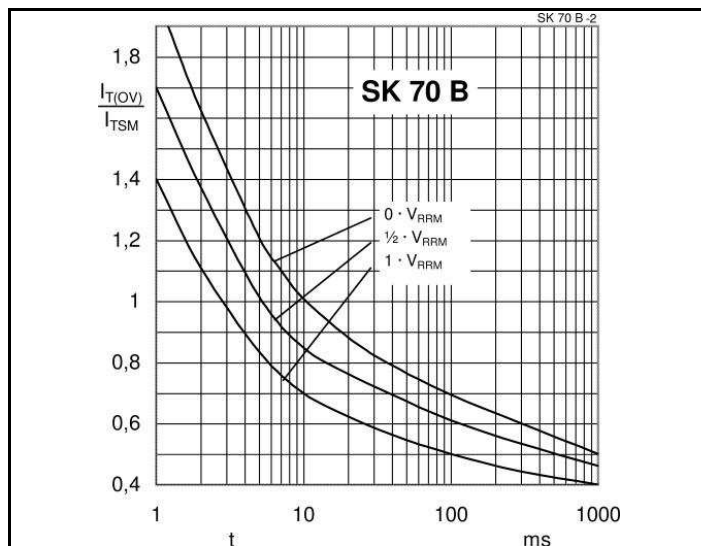


Fig. 2 Surge overload current vs. time

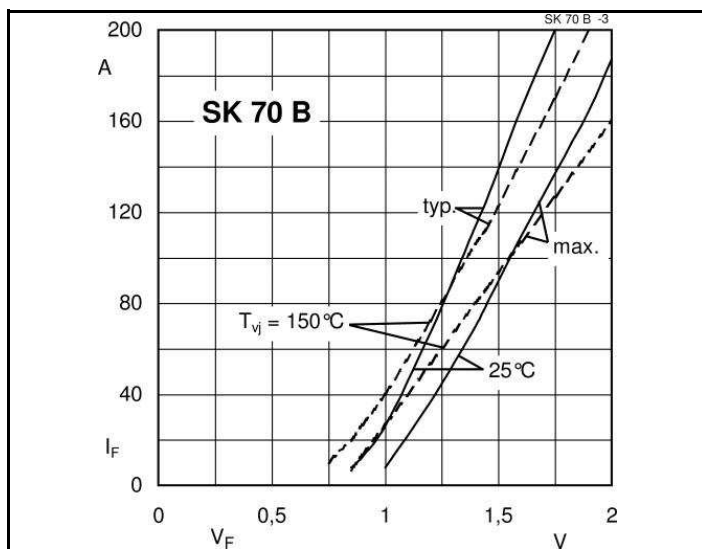


Fig. 3 Forward characteristics of single diode

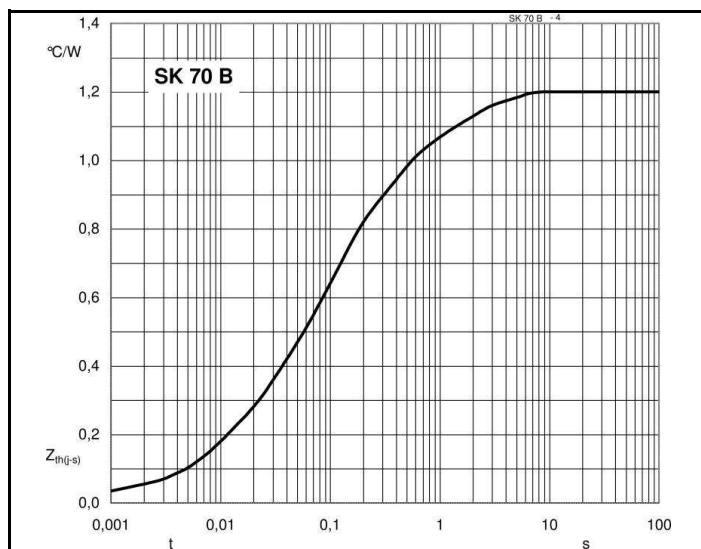
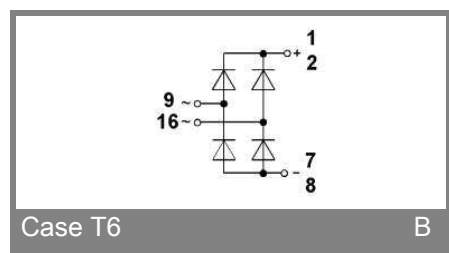


Fig. 4 Thermal transient impedance vs. time



3