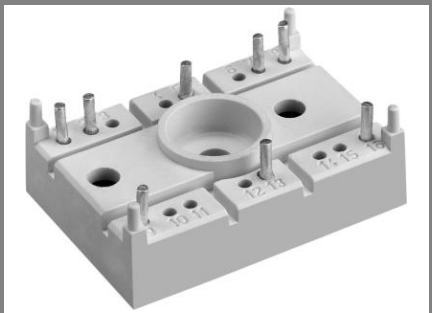


SK 70 D



SEMITOP® 2

Bridge Rectifier

SK 70 D

Preliminary Data

Features

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

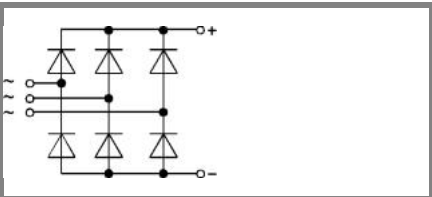
Typical Applications

- Input rectifier for power supplies
- Rectifier

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

Symbol	Conditions	Values	Units
I_D	$T_s = 80\text{ °C}$	70	A
I_{FSM}	$T_{vj} = 25\text{ °C}; 10\text{ ms}$ $T_{vj} = 150\text{ °C}; 10\text{ ms}$	370 270	A A
i^2t	$T_{vj} = 25\text{ °C}; 8,3...10\text{ ms}$ $T_{vj} = 150\text{ °C}; 8,3...10\text{ ms}$	685 365	A²s A²s
V_F	$T_{vj} = 25\text{ °C}; I_F = 25\text{ A}$	max. 1,25	V
$V_{(TO)}$	$T_{vj} = 150\text{ °C}$	0,8	V
r_T	$T_{vj} = 150\text{ °C}$	13	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	1,7 0,28	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. mounting torque to heatsink	3000 (2500) 2	V Nm
M_s			
M_t			
a			m/s²
m	approx. weight	19	g
Case	SEMITOP® 2	T 7	

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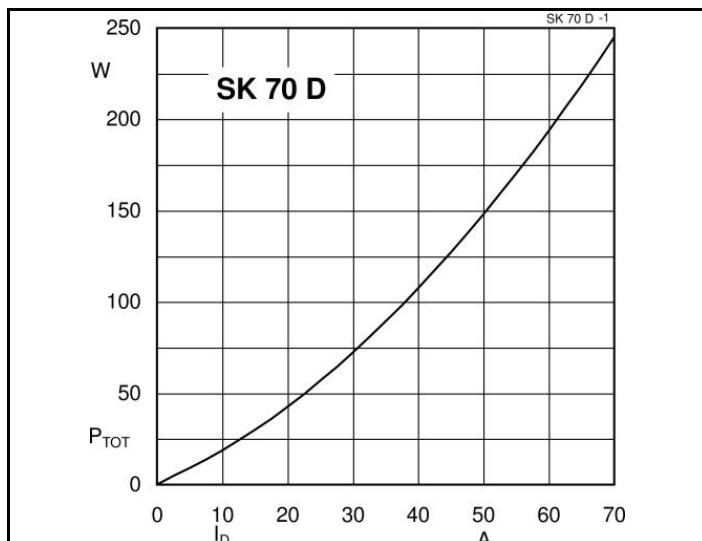


Fig. 1 Power dissipation vs. Output current

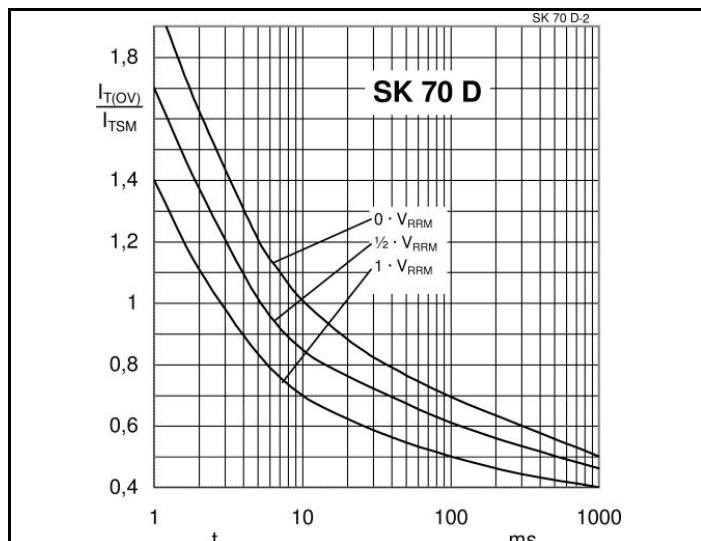


Fig. 2 Surge overload current vs. time

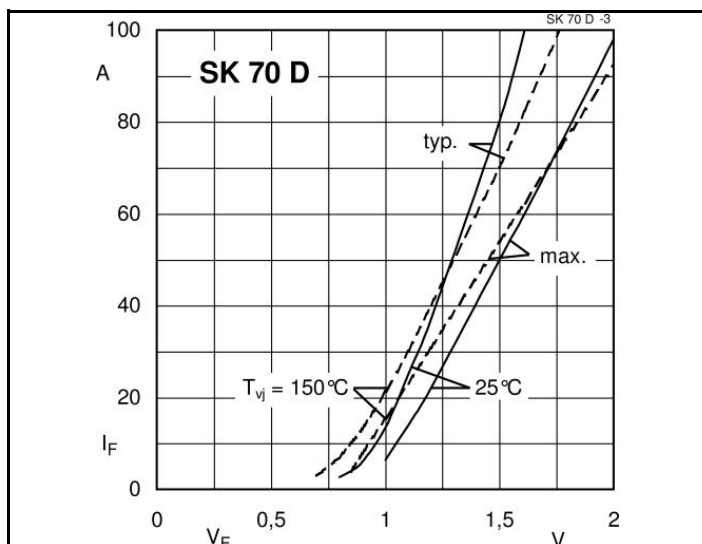


Fig. 3 Forward characteristics of single diode

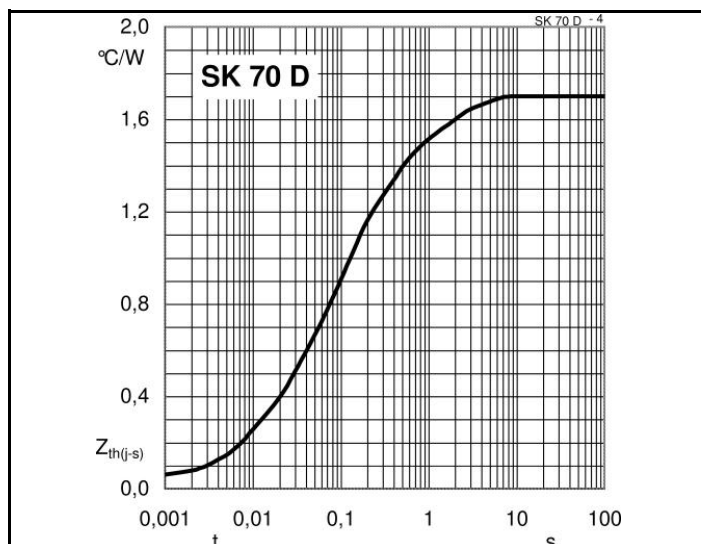
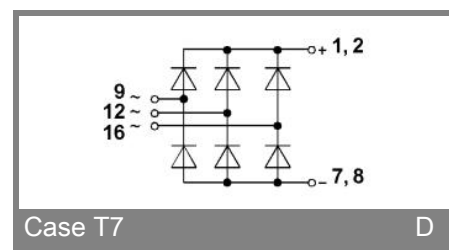
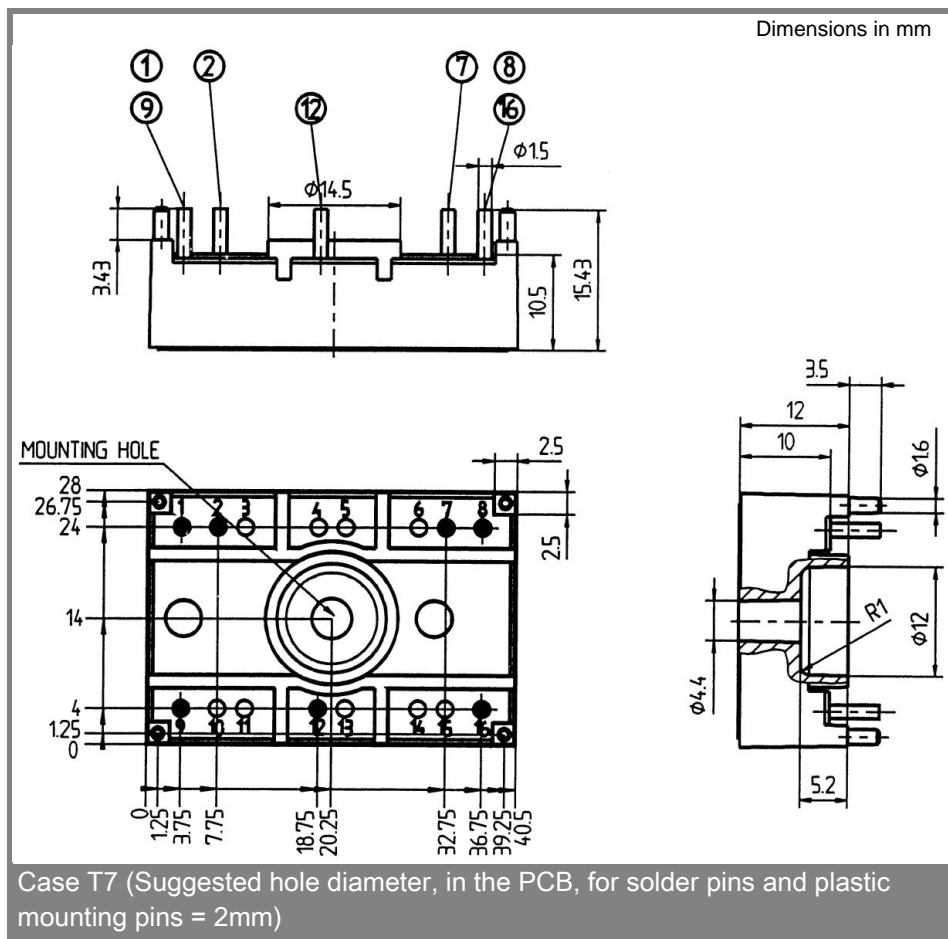


Fig. 4 Thermal transient impedance vs. time



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