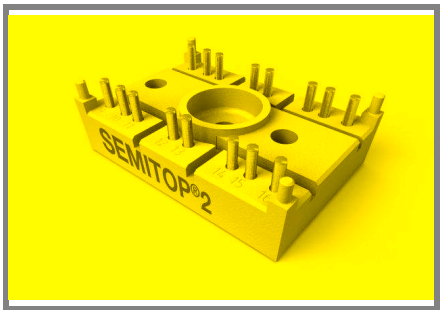
SK 70 D



SEMITOP® 2

Bridge Rectifier

SK 70 D

Preliminary Data

Features

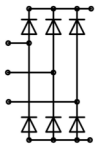
- Compact design
- One screw mounting
- Heat transfer and insulation through direct copper bonded aluminium oxide ceramic (DCB
- Up to 1600V reverse voltage
- High surge currents
- Glass passived diodes chips
- UL recognized, file no. E 63 532

Typical Applications*

- Input rectifier for power supplies
- Rectifier

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

Symbol	Conditions	Values	Units
I_D	T_s = 80 °C	70	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	370	A
	T_{vj} = 150 °C; 10 ms	270	A
i²t	T_{vj} = 25 °C; 8,3...10 ms	685	A²s
	T_{vj} = 150 °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} = 150 °C	max. 0,8	V
r_T	T_{vj} = 150 °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	0,28	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 7	



D

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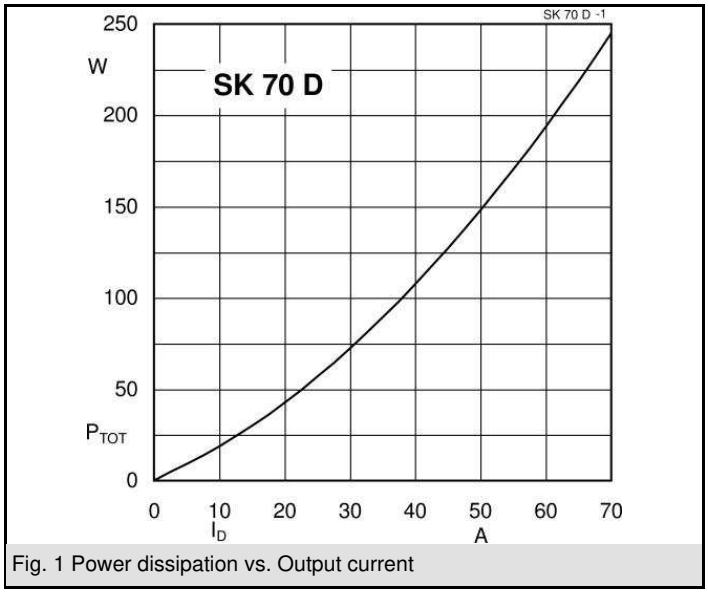


Fig. 1 Power dissipation vs. Output current

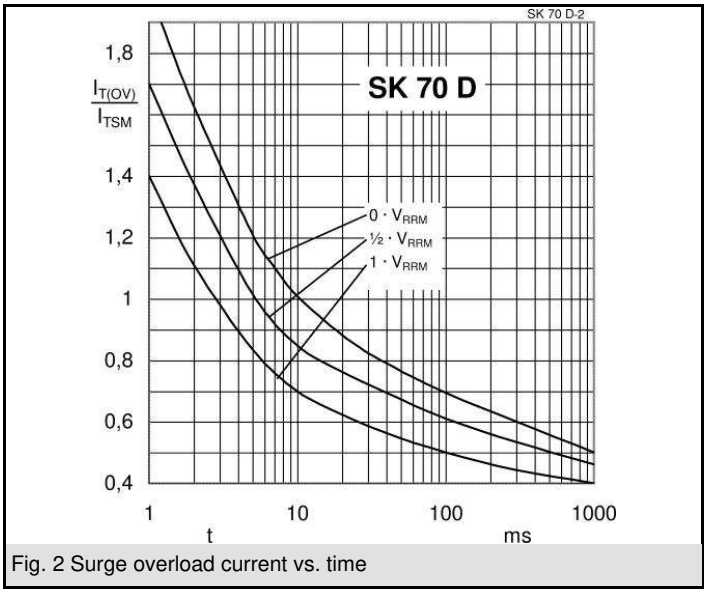


Fig. 2 Surge overload current vs. time

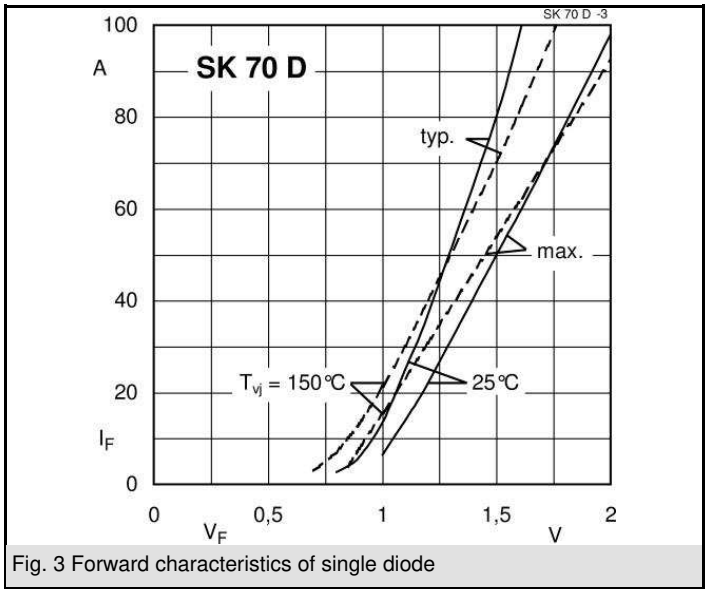


Fig. 3 Forward characteristics of single diode

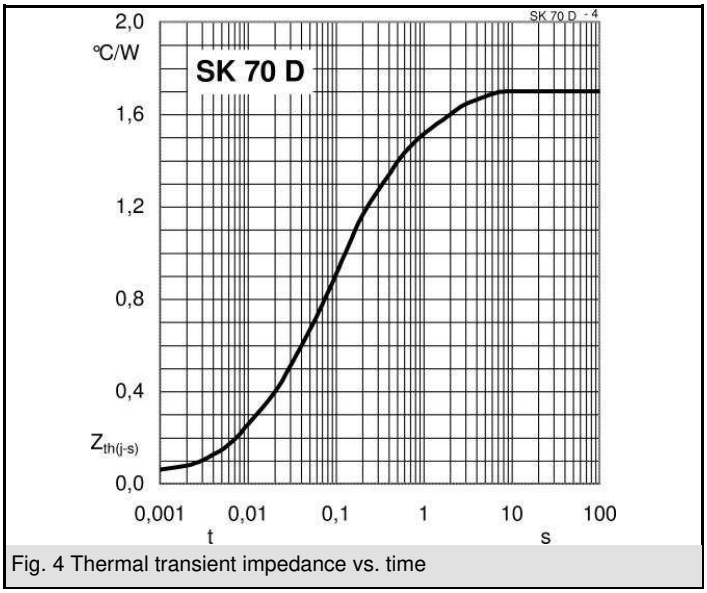
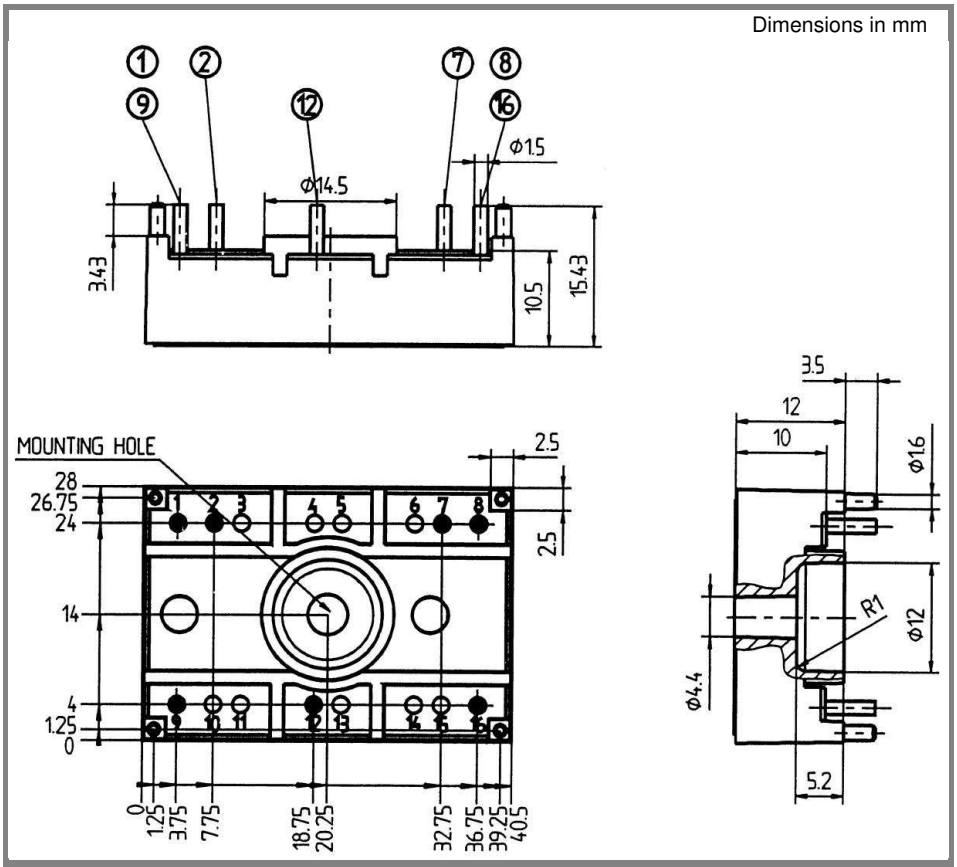


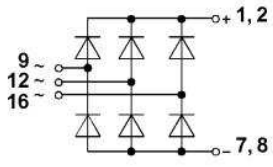
Fig. 4 Thermal transient impedance vs. time

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Case T7 (Suggested hole diameter, in the PCB, for solder pins and plastic mounting pins = 2mm)



Case T7 D

* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.

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