

**SEMITOP® 2**

## Bridge Rectifier

### SK 70 D

Preliminary Data

### Features

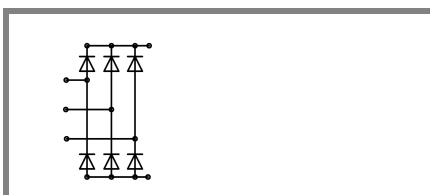
- Compact design
- One screw mounting
- Heat transfer and insulation through direct copper bonded aluminium oxide ceramic (DCB)
- Up to 1600V reverse voltage
- High surge currents
- Glass passivated diodes chips
- UL recognized, file no. E 63 532

### Typical Applications

- Input rectifier for power supplies
- Rectifier

$V_{RSM}$ V	$V_{RRM}, V_{DRM}$ V	$I_D = 70$ 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 $T_{vj} = 150$ °C; 10 ms	370 270	A A
$i^2t$	$T_{vj} = 25$ °C; 8,3...10 ms $T_{vj} = 150$ °C; 8,3...10 ms	685 365	A²s 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
$R_{th(f-s)}$	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
$M_s$			
$M_t$			
m	approx. weight	19	g
Case	SEMITOP® 2	T 7	



D

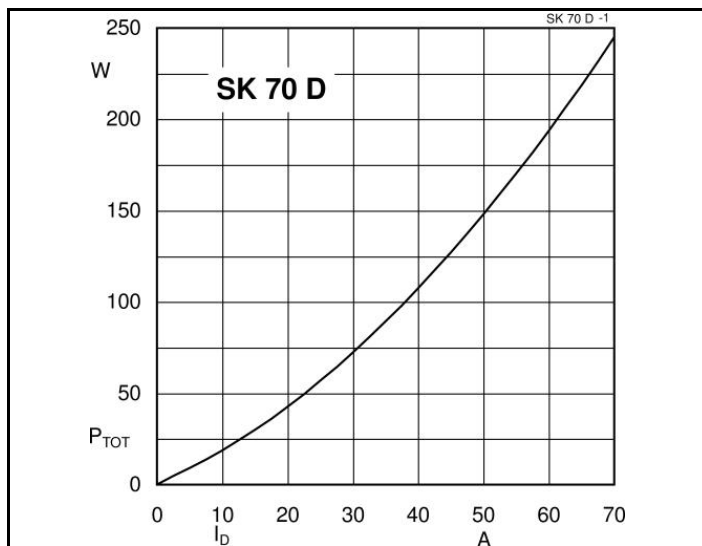


Fig. 1 Power dissipation vs. Output current

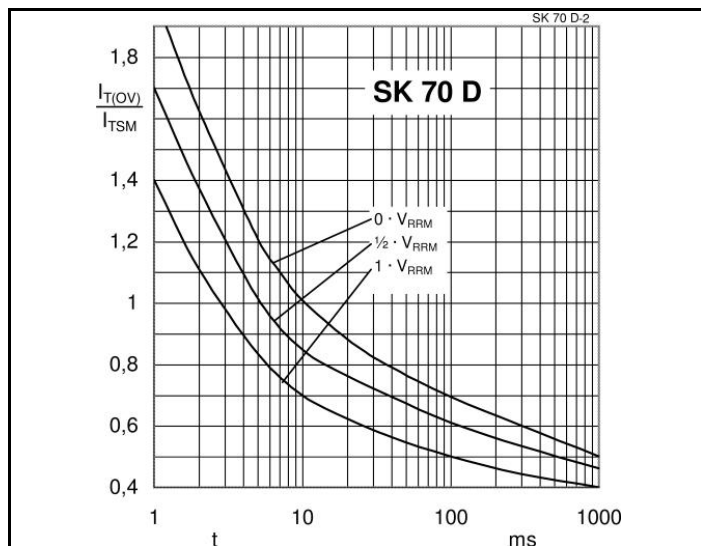


Fig. 2 Surge overload current vs. time

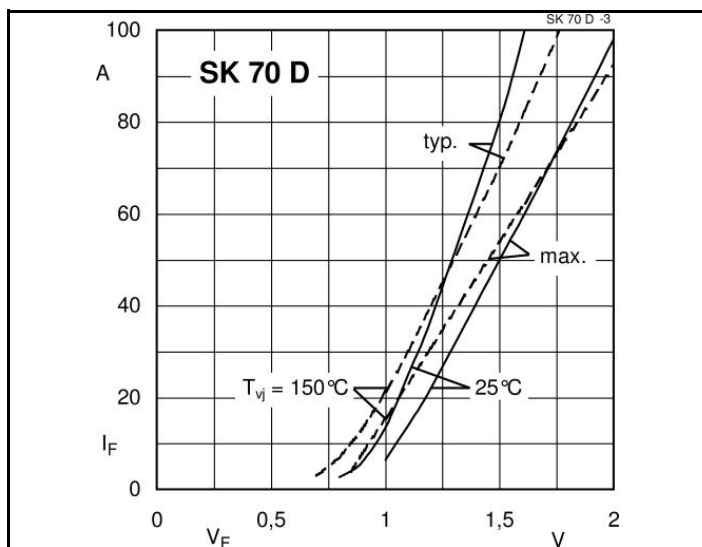


Fig. 3 Forward characteristics of single diode

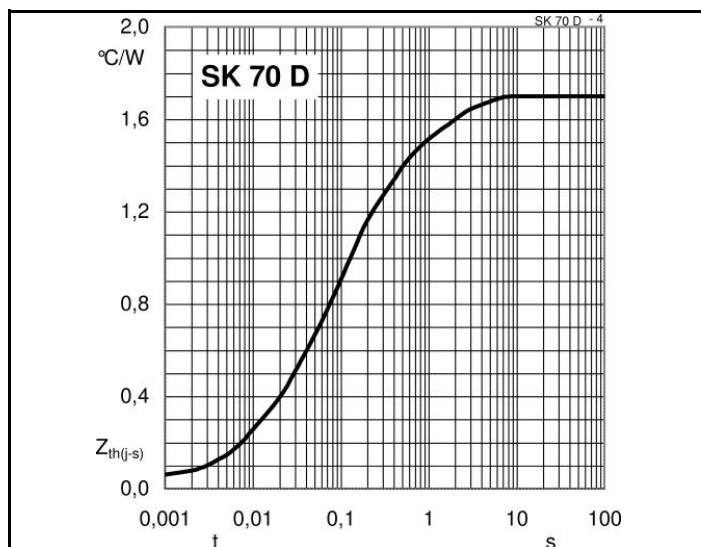
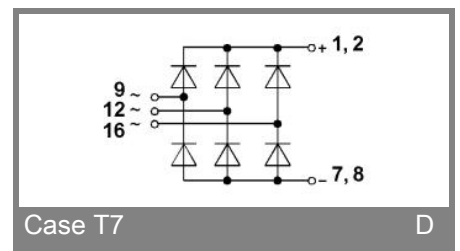
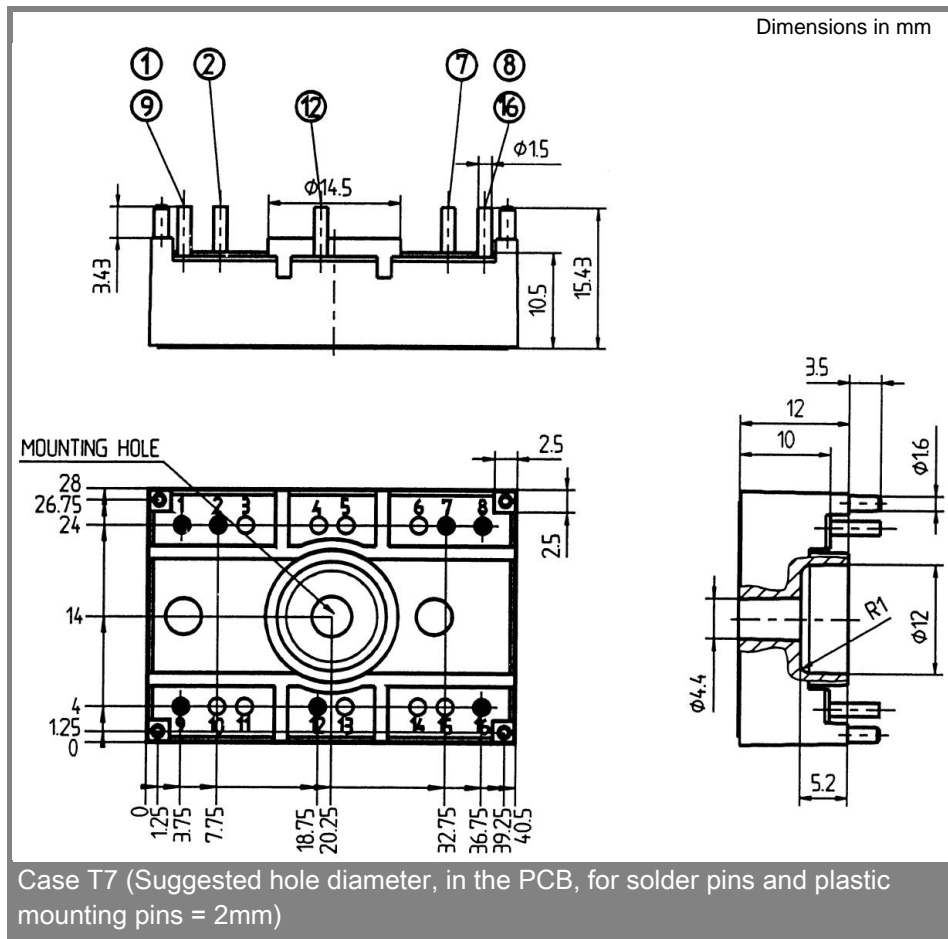


Fig. 4 Thermal transient impedance vs. time



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