

## SK 95 D 16p



SEMITOP® 2 Press-Fit

## Bridge Rectifier

## SK 95 D 16p

## Features

- Compact design
- One screw mounting
- Solder free mounting with Press-Fit terminals
- Fully compatible with SEMITOP® Press-Fit types
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DBC)
- High surge currents
- Glass passivated diode chips
- UL recognized, file no. E 63 532

## Typical Applications\*

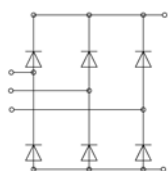
- Input rectifier for power supplies
- Rectifier

Absolute Maximum Ratings				
Symbol	Conditions		Values	Unit
Rectifier				
V <sub>RSM</sub>	T <sub>j</sub> = 25 °C		1700	V
V <sub>RRM</sub>	T <sub>j</sub> = 25 °C		1600	V
I <sub>D</sub>	T <sub>j</sub> = 150 °C	T <sub>s</sub> = 25 °C	137	A
		T <sub>s</sub> = 70 °C	104	A
I <sub>FSM</sub>	sin 180°	T <sub>j</sub> = 25 °C	635	A
	10 ms	T <sub>j</sub> = 150 °C	560	A
i <sup>2</sup> t	sin 180°	T <sub>j</sub> = 25 °C	2016	A <sup>2</sup> s
	10 ms	T <sub>j</sub> = 150 °C	1568	A <sup>2</sup> s
T <sub>j</sub>			-40 ... 150	°C

Absolute Maximum Ratings			
Symbol	Conditions	Values	Unit
Module			
I <sub>t(RMS)</sub>	T <sub>terminal</sub> = 100 °C, T <sub>S</sub> = 60°C	40	A
T <sub>stg</sub>		-40 ... 125	°C
V <sub>isol</sub>	AC, sinusoidal, t = 1 min	2500	V

Characteristics						
Symbol	Conditions		min.	typ.	max.	Unit
Rectifier						
V <sub>F</sub>	I <sub>F</sub> = 25 A	T <sub>j</sub> = 25 °C		1.00	1.21	V
	chiplevel	T <sub>j</sub> = 125 °C		0.90	1.10	V
V <sub>F0</sub>		chiplevel	T <sub>j</sub> = 25 °C	0.88	0.98	V
			T <sub>j</sub> = 125 °C	0.73	0.83	V
r <sub>F</sub>	chiplevel	T <sub>j</sub> = 25 °C		4.8	9.2	mΩ
			T <sub>j</sub> = 125 °C		6.8	11
I <sub>R</sub>	T <sub>j</sub> = 145 °C, V <sub>RRM</sub>				1.1	mA
R <sub>th(j-s)</sub>	per Diode			1.2		K/W

Characteristics					
Symbol	Conditions	min.	typ.	max.	Unit
Module					
M <sub>s</sub>	to heatsink	1.8		2	Nm
w	weight		19		g



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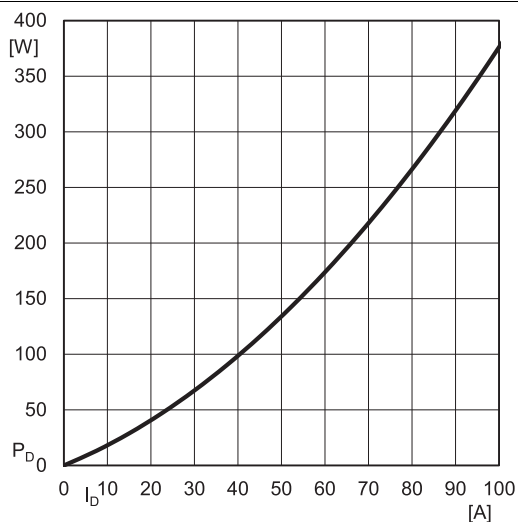


Fig. 1: Power dissipation vs. Output current

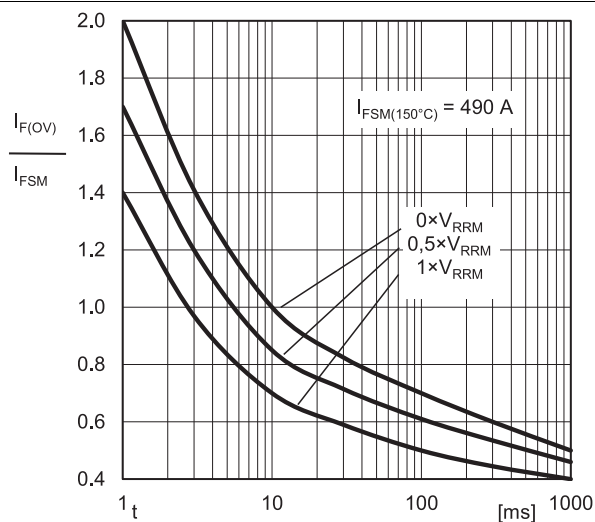


Fig. 2: Surge overload current vs time

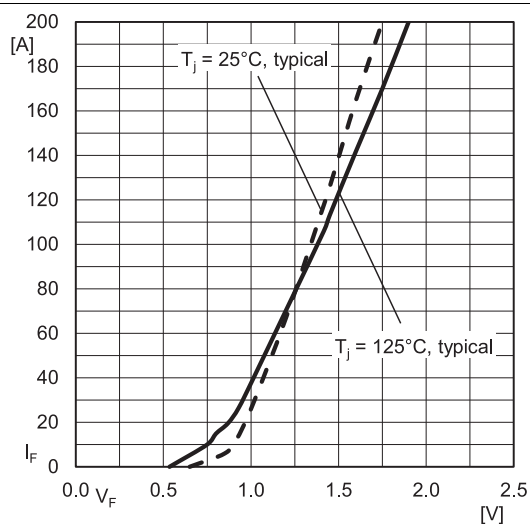


Fig. 3: Forward characteristic of single diode

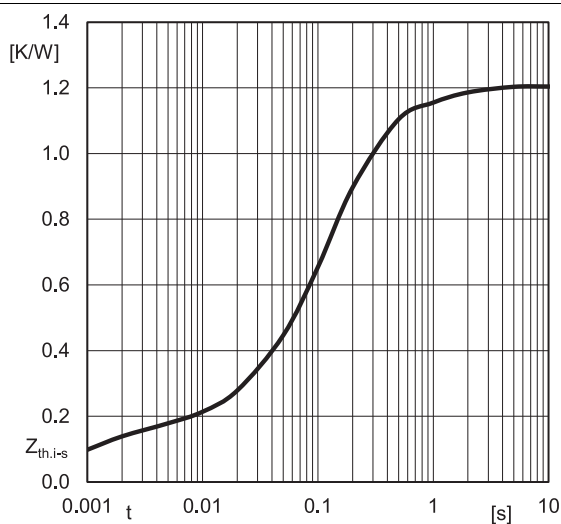
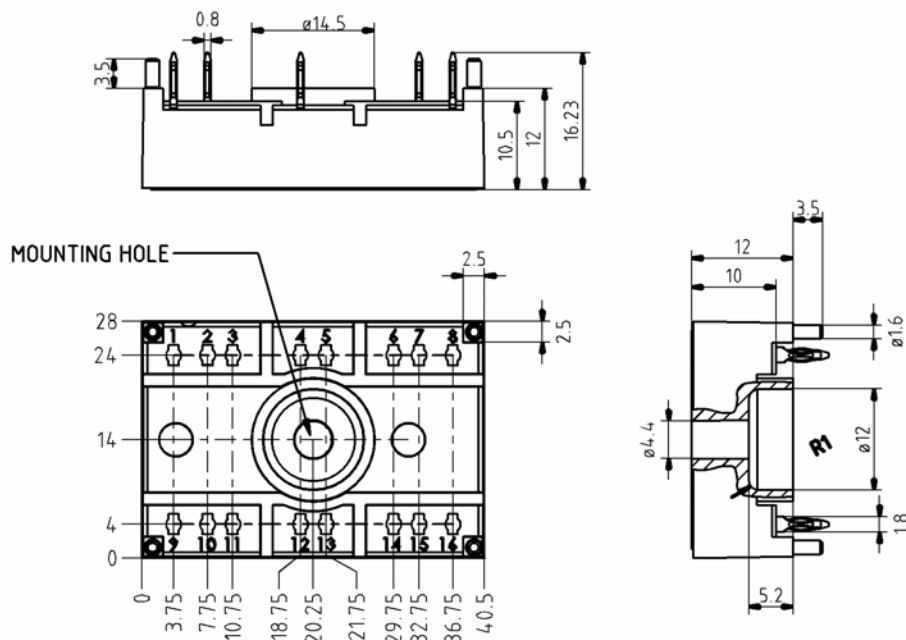


Fig. 4: Transient thermal impedance vs. time

dimensions in mm  
tolerance system: ISO 2768-m



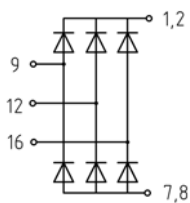
Suggested drilled hole diameter for terminal pins in the circuit board:

- minimum: 1,575mm
- typical: 1,6mm
- maximum: 1,625mm

Suggested hole diameter for the mounting pins in the circuit board: 2mm

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## SEMITOP 2 Press-Fit



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This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, chapter IX.

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