SK 95 D 16p

SEMITOP® 2 Press-Fit

Bridge Rectifier

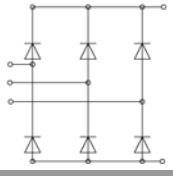
SK 95 D 16p

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



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Absolute Maximum Ratings				
Symbol	**Conditions**		**Values**	**Unit**
Rectifier				
V_{RSM}	T_j = 25 °C		1700	V
V_{RRM}	T_j = 25 °C		1600	V
I_D	T_j = 150 °C	T_s = 25 °C	137	A
		T_s = 70 °C	104	A
I_{FSM}	sin 180° 10 ms	T_j = 25 °C	635	A
		T_j = 150 °C	560	A
i^2t	sin 180° 10 ms	T_j = 25 °C	2016	A^2s
		T_j = 150 °C	1568	A^2s
T_j			-40 ... 150	°C

Absolute Maximum Ratings			
Symbol	**Conditions**	**Values**	**Unit**
Module			
$I_{t(RMS)}$	$T_{terminal}$ = 100 °C, T_S = 60°C	40	A
T_{stg}		-40 ... 125	°C
V_{isol}	AC, sinusoidal, t = 1 min	2500	V

Characteristics						
Symbol	**Conditions**		**min.**	**typ.**	**max.**	**Unit**
Rectifier						
V_F	I_F = 25 A	T_j = 25 °C		1.00	1.21	V
	chiplevel	T_j = 125 °C		0.90	1.10	V
V_{F0}	chiplevel	T_j = 25 °C		0.88	0.98	V
		T_j = 125 °C		0.73	0.83	V
r_F	chiplevel	T_j = 25 °C		4.8	9.2	mΩ
		T_j = 125 °C		6.8	11	mΩ
I_R	T_j = 145 °C, V_{RRM}				1.1	mA
$R_{th(j-s)}$	per Diode			1.2		K/W

Characteristics					
Symbol	**Conditions**	**min.**	**typ.**	**max.**	**Unit**
Module					
M_s	to heatsink	1.8		2	Nm
w	weight		19		g

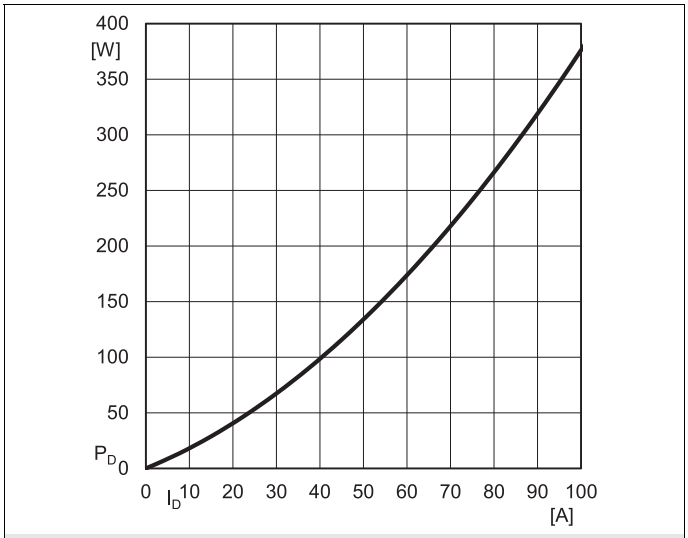


Fig. 1: Power dissipation vs. Output current

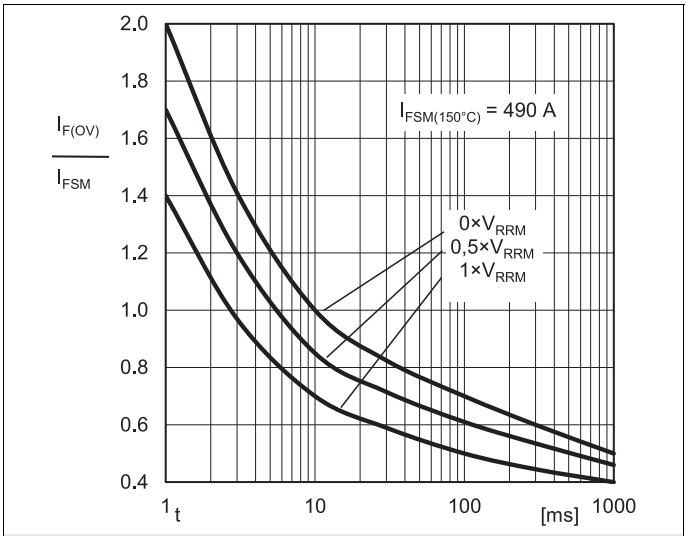


Fig. 2: Surge overload current vs time

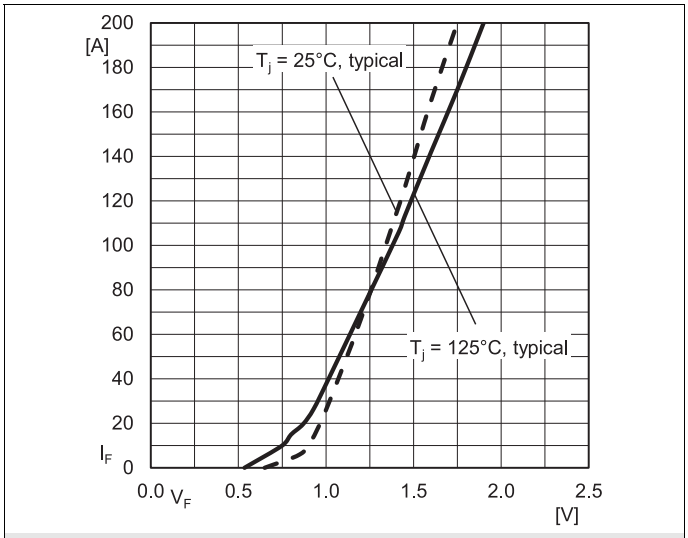


Fig. 3: Forward characteristic of single diode

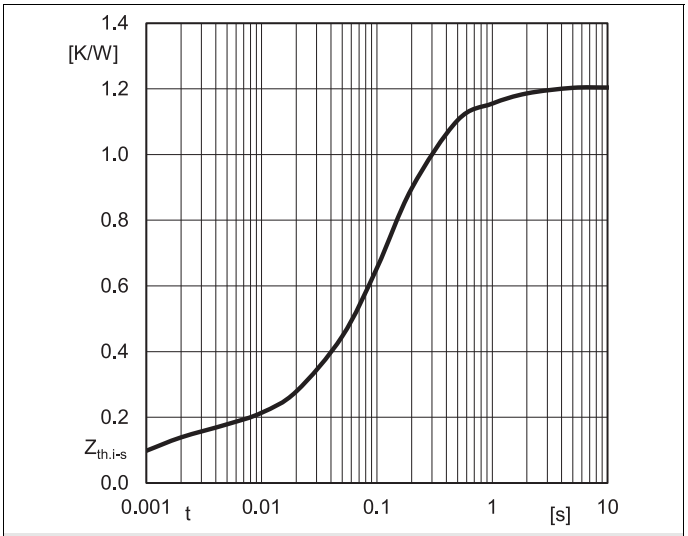
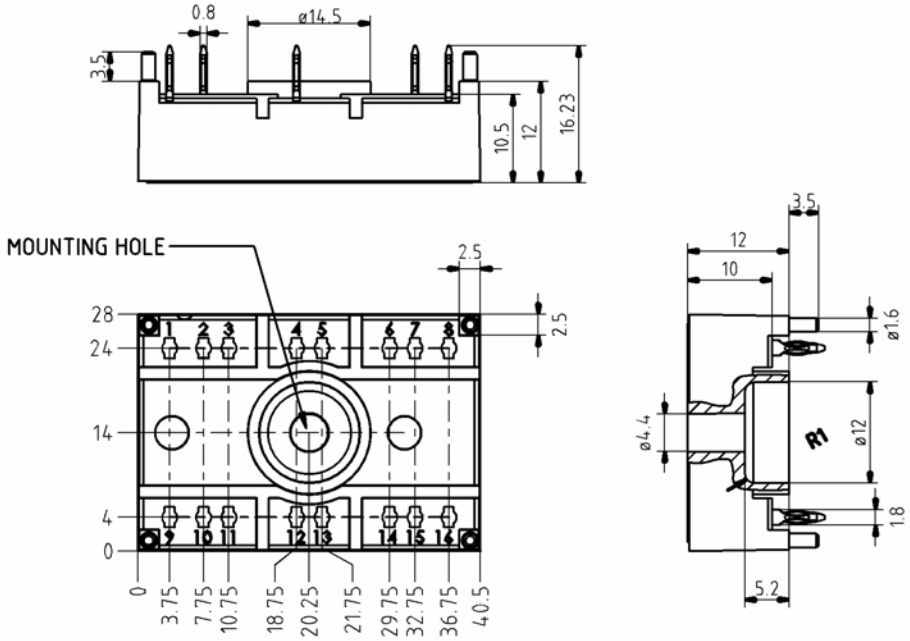


Fig. 4: Transient thermal impedance vs. time

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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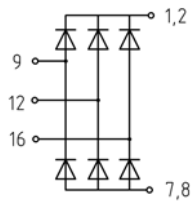

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This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, chapter IX.

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