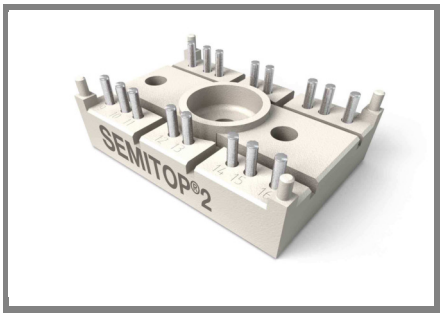
SK 20 NHMH



SEMITOP®2

Thyristor/Diode Module

SK 20 NHMH

Target Data

Features

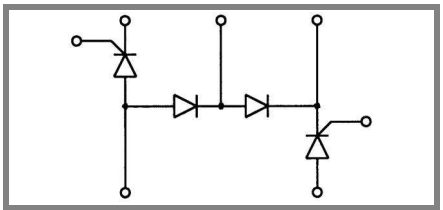
- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- Glass passivated thyristor chip
- High surge currents

Typical Applications*

- UPS

1) Value limited by thyristor chip

2) Thermal resistance junction to heatsink



NHMH

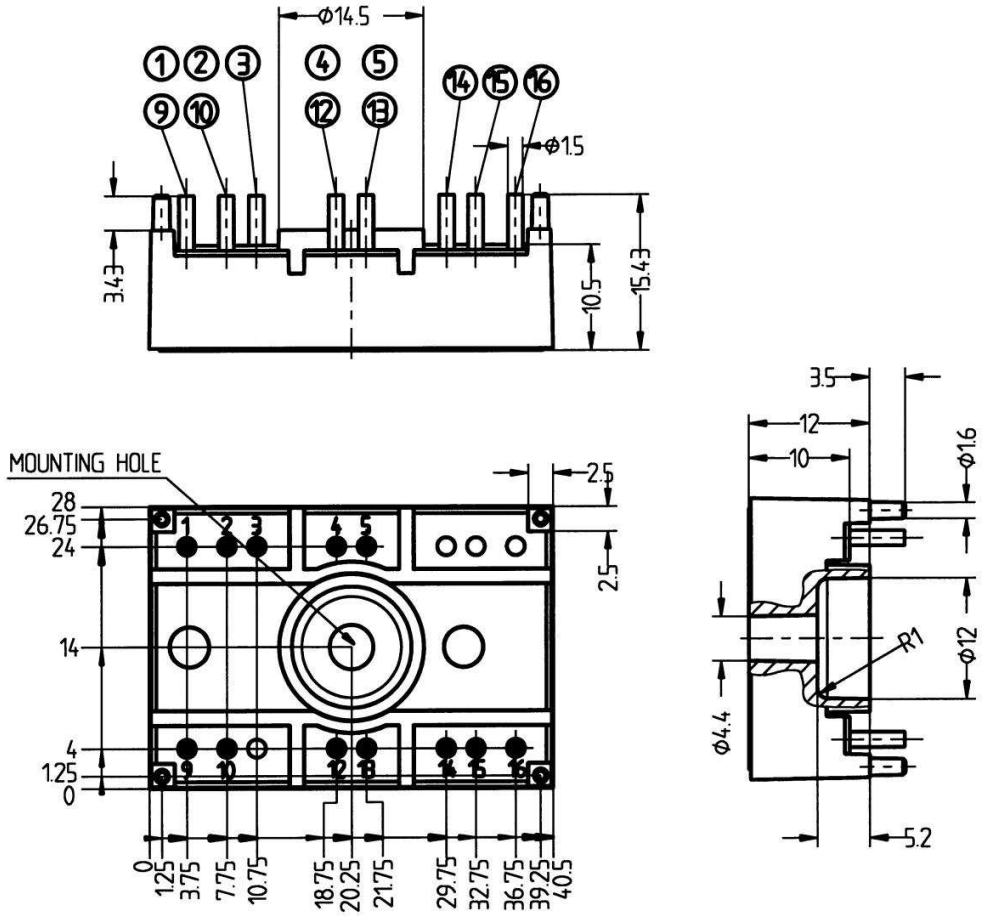
V_{RSM} V	V_{RRM}, V_{DRM} V	I_{RMS} [1] (maximum values for cont. operation) 21 A (T_s = 85 °C)
900	800	SK 20 NHMH 08
1100	1000	SK 20 NHMH 10

Characteristics	T_s= 25°C, unless otherwise specified		
Symbol	**Conditions**	**Values**	**Units**
			A
I_{TAV}	sin. 180°; T_h=85°C	21	A
			A
I_{TSM}/I_{FSM}	T_{vj} = 25 (125) °C; 10 ms	450 (380)	A
I^2t	T_{vj} = 25 (125) °C; 8,3 ... 10 ms	1000 (720)	A^2s
T_{stg}		-40 ... + 125	°C
T_{solder}	terminals, 10 s	260	°C
Thyristor			
$(dv/dt)_{cr}$	T_{vj} = 125 °C	1000	V/µs
$(di/dt)_{cr}$	T_{vj} = 125 °C; f = 50 ... 60 Hz	50	A/µs
t_q	T_{vj} = 125 °C; typ.	80	µs
I_H	T_{vj} = 25 °C; typ. / max.	80 / 150	mA
I_L	T_{vj} = 25 °C; R_G = 33 Ω; typ. / max.	150 / 300	mA
V_T	T_{vj} = 25 °C; (I_T = 75 A); max.	1,9	V
$V_{T(TO)}$	T_{vj} = 125 °C	max. 1	V
r_T	T_{vj} = 125 °C	max. 10	mΩ
I_{DD}; I_{RD}	T_{vj} = 125 °C; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}	max. 10	mA
$R_{th(j-s)}$	cont. [2]	1,2	K/W
T_{vj}		-40 ... +125	°C
V_{GT}	T_{vj} = 25 °C; d.c.	2	V
I_{GT}	T_{vj} = 25 °C; d.c.	100	mA
V_{GD}	T_{vj} = 125 °C; d.c.	0,25	V
I_{GD}	T_{vj} = 125 °C; d.c.	3	mA
Diode			
V_F	T_{vj} = 25 °C; (I_F = 80 A); max.	1,45	V
$V_{(TO)}$	T_{vj} = 150 °C	0,8	V
r_T	T_{vj} = 150 °C	7,5	mΩ
I_{RD}	T_{vj} = 150 °C; V_{RD} = V_{RRM}	4	mA
$R_{th(j-s)}$	per diode ²⁾	1,2	K/W
T_{vj}		-40 ... +150	°C
Mechanical data			
V_{isol}	a.c. 50 Hz;r.m.s.,1s (1 min)	3000 (2500)	V
M_1	mounting torque	2	Nm
w		19	g
Case	SEMITOP®2	T 30	

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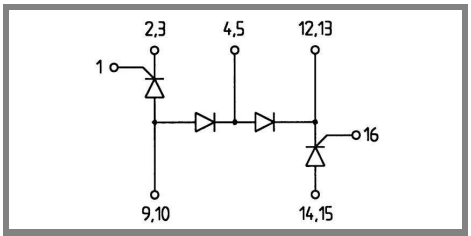
UL Recognized File
no. E 63532

Dimensions in mm



SUGGESTED HOLEDIAMETER FOR THE SOLDER PINS AND THE MOUNTING PINS IN THE PCB: 2 mm

Case T 30 (Suggested hole diameter, in the PCB, for solder pins and plastic mounting pins: 2mm)



Case T 30

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

* 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 staff.

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