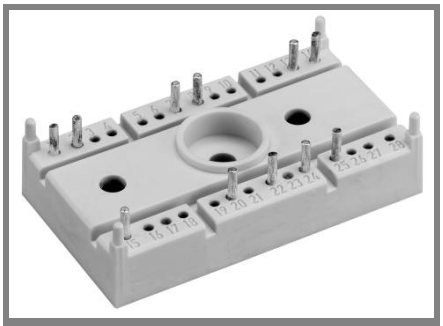
SK 70 WT



SEMITOP® 3

Thyristor

SK 70 WT

Target Data

Features

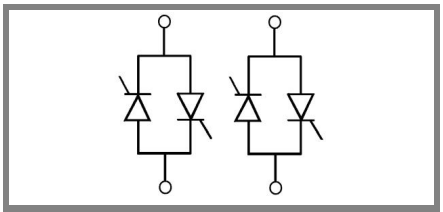
- Compact Design
- One screw mounting
- Heat transfer and isolation trough direct copper bonded aluminium oxide ceramic (DCB)
- Glass passived thyristor chips
- Up to 1600V reverse voltage
- UL recognized, file no. E 63 532

Typical Applications

- Soft starters
- Light control (studios, theaters...)
- Temperature control

V_{RSM} V	V_{RRM}, V_{DRM} V	I_{RMS}= 72 A (T_s = 85 °C)
900	800	SK 70 WT 08
1300	1200	SK 70 WT 12
1700	1600	SK 70 WT 16

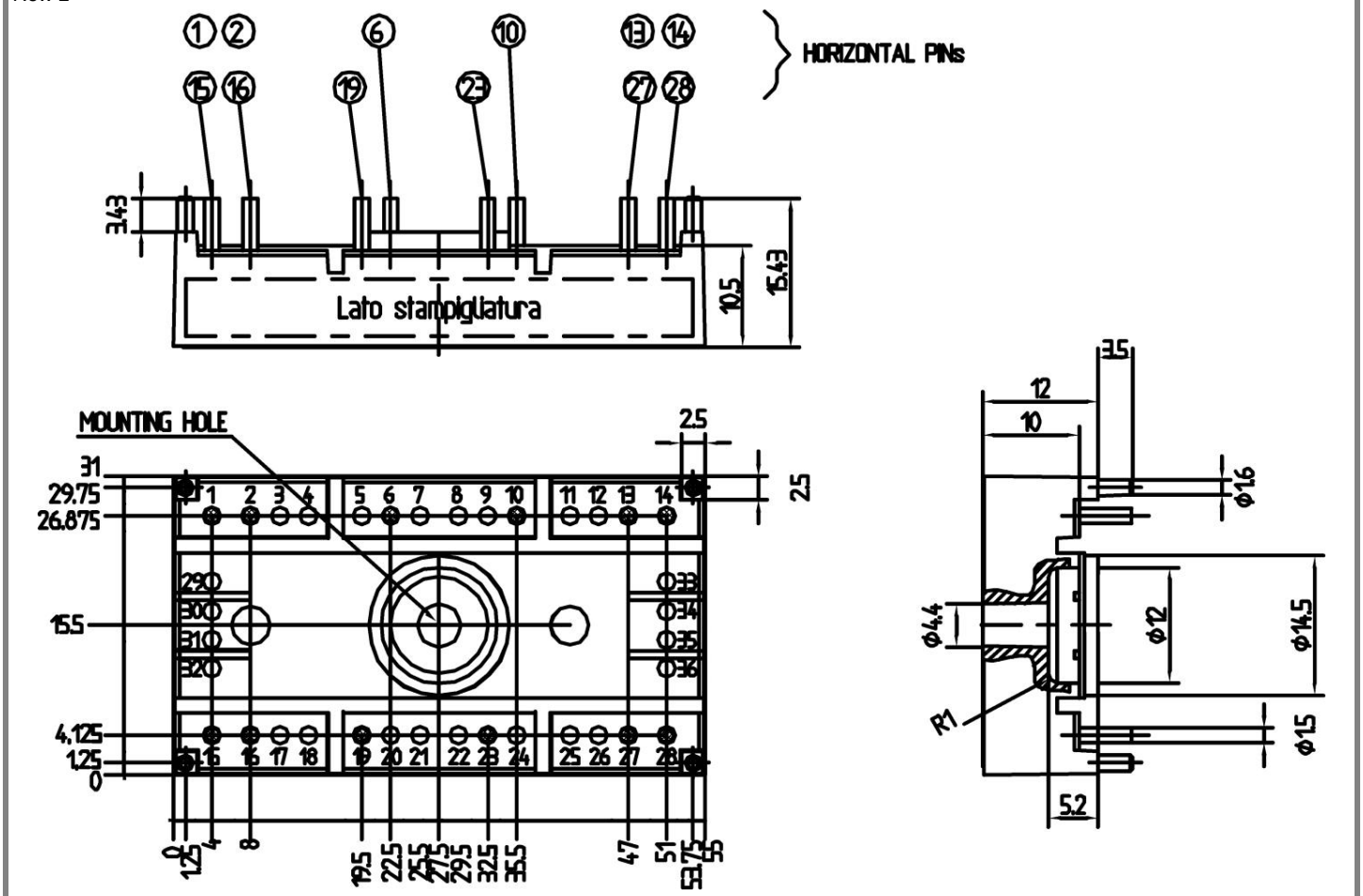
Characteristics		Ts = 25°C Unless otherwise specified	
Symbol	**Conditions**	**Values**	**Units**
I_D			A
I_{TAV}/I_{FAV}			A
I_{RMS}	W1C; sin 180°; per phase at Ts = 85 (100)°C	72 (50)	A
I_{TSM}/I_{FSM}	T_{vj} = 25 (125) °C; 10 ms	1000 (900)	A
I^2t	T_{vj} = 25 (125) °C; 8,3 ... 10 ms	5000 (4000)	A^2s
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 = f = 50...60 Hz	50	A/µs
t_q	T_{vj} = 125 °C; typ.	80	µs
I_H	T_{vj} = 25 °C; typ. / max.	100 / 200	mA
I_L	T_{vj} = 25 °C; R_G = 33 Ω; typ. / max.	200 / 400	mA
V_T	T_{vj} = 25 °C; (I_T = 120 A); max.	1,8	V
$V_{T(TO)}$	T_{vj} = 125 °C	max. 1	V
r_T	T_{vj} = 125 °C	max. 6	mΩ
I_{DD}; I_{RD}	T_{vj} = 125 °C; V_{DD} = V_{DRM}; V_{RD} = V_{RRM}	max. 15	mA
$R_{th(j-s)}$	per thyristor	0,8	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.	5	mA
Diode			
V_F	T_{vj} = °C; (I_F = A); max.		V
$V_{(TO)}$	T_{vj} = °C		V
r_T	T_{vj} = °C		mΩ
I_{RD}	T_{vj} = °C; V_{RD} = V_{RRM}		mA
$R_{th(j-s)}$			K/W
T_{vj}			°C
Mechanical data			
V_{isol}	a. c. 50 Hz; r.m.s.; 1 s / 1 min	3000 (2500)	V
M_1	mounting torque	2,5	Nm
w		30	g
Case	SEMITOP® 3	T 63	



WT

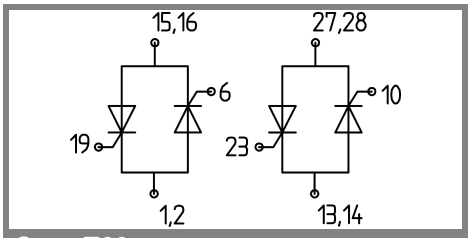
Row 1
Row 2

Dimensions in mm



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

Case T63 (Sugested hole diameter in the PCB for solder pins and mounting pins: 2mm)



Case T63

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

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