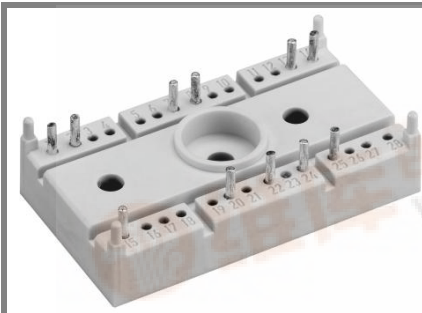


SK 100 WT



SEMITOP® 3

Thyristor

SK 100 WT

Target Data

Features

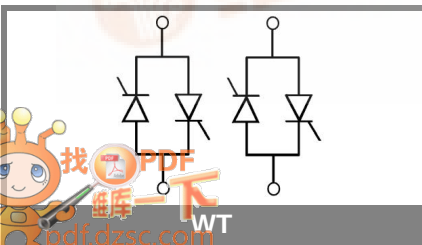
- Compact Design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- Glass passivated thyristor chips
- Up to 1600V reverse voltage
- UL recognized, file no. E 63 532

Typical Applications

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

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_{RMS} = 101\text{ A}$ ($T_s = 85\text{ °C}$)
900	800	SK 100 WT 08
1300	1200	SK 100 WT 12
1700	1600	SK 100 WT 16

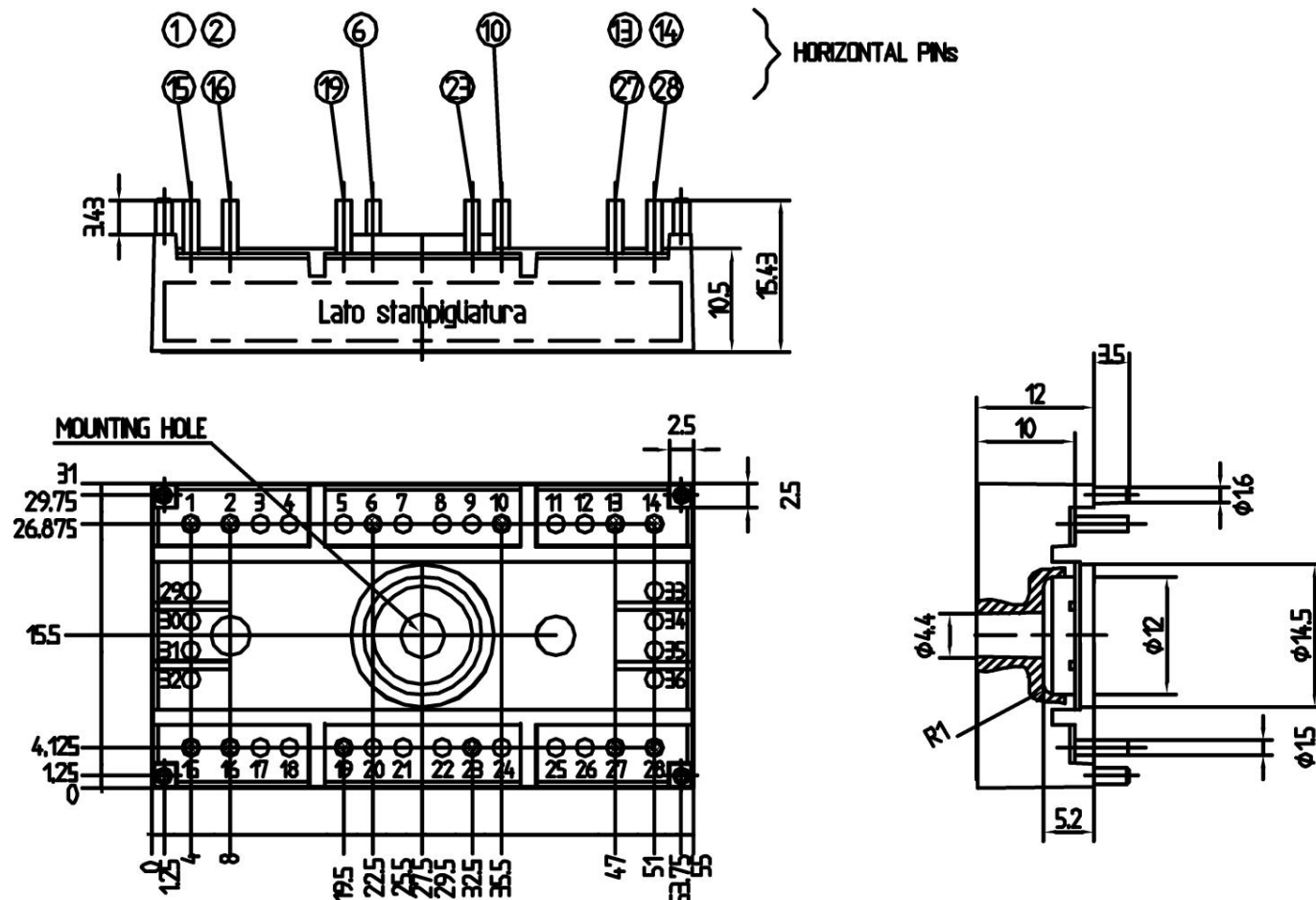
Characteristics		$T_s = 25\text{ °C}$ Unless otherwise specified	
Symbol	Conditions	Values	Units
I_D			A
I_{TAV}/I_{FAV}			A
I_{RMS}	W1C; sin 180°; per phase at $T_s = 85\text{ (100) °C}$	101 (71)	A
I_{TSM}/I_{FSM}	$T_{vj} = 25\text{ (125) °C}; 10\text{ ms}$	1500 (1350)	A
I^2t	$T_{vj} = 25\text{ (125) °C}; 8,3 \dots 10\text{ ms}$	11250 (9100)	A ² s
T_{stg}		-40... +125	°C
T_{solder}	terminals, 10 s	260	°C
Thyristor			
$(dv/dt)_{cr}$	$T_{vj} = 125\text{ °C}$	1000	V/μs
$(di/dt)_{cr}$	$T_{vj} = 125\text{ °C}; f = 50 \dots 60\text{ Hz}$	100	A/μs
t_q	$T_{vj} = 125\text{ °C}; \text{typ.}$	80	μs
I_H	$T_{vj} = 25\text{ °C}; \text{typ. / max.}$	100 / 200	mA
I_L	$T_{vj} = 25\text{ °C}; R_G = 33\text{ Ω}; \text{typ. / max.}$	200 / 500	mA
V_T	$T_{vj} = 25\text{ °C}; (I_T = 200\text{ A}); \text{max.}$	1,8	V
$V_{T(TO)}$	$T_{vj} = 125\text{ °C}$	max. 0,9	V
r_T	$T_{vj} = 125\text{ °C}$	max. 4,5	mΩ
I_{DD}, I_{RD}	$T_{vj} = 125\text{ °C}; V_{DD} = V_{DRM}, V_{RD} = V_{RRM}$	max. 20	mA
$R_{th(j-s)}$	per thyristor	0,6	K/W
T_{vj}		- 40 ... + 125	°C
V_{GT}	$T_{vj} = 25\text{ °C}; \text{d.c.}$	2	V
I_{GT}	$T_{vj} = 25\text{ °C}; \text{d.c.}$	100	mA
V_{GD}	$T_{vj} = 125\text{ °C}; \text{d.c.}$	0,25	V
I_{GD}	$T_{vj} = 125\text{ °C}; \text{d.c.}$	5	mA
Diode			
V_F	$T_{vj} = \text{°C}; (I_F = \text{A}); \text{max.}$		V
$V_{(TO)}$	$T_{vj} = \text{°C}$		V
r_T	$T_{vj} = \text{°C}$		mΩ
I_{RD}	$T_{vj} = \text{°C}; V_{RD} = V_{RRM}$		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	



SK 100 WT

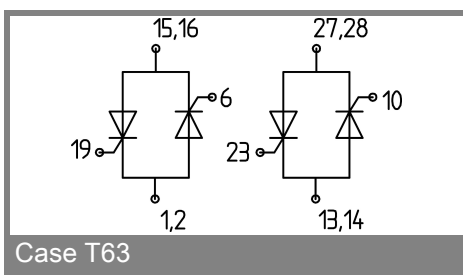
Row 1
Row 2

Dimensions in mm



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

Case T63 (Suggested 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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