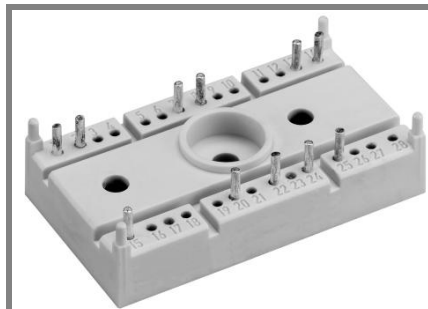


# SK 100 WT



SEMITOP® 3

## Thyristor

### SK 100 WT

#### Target Data

#### Features

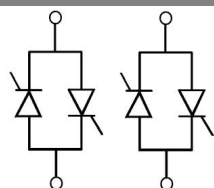
- Compact Design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DCB)
- Glass passivated thyristor chips
- Up to 1600V reverse voltage
- UL recognized, file no. E 63 532

#### Typical Applications

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

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

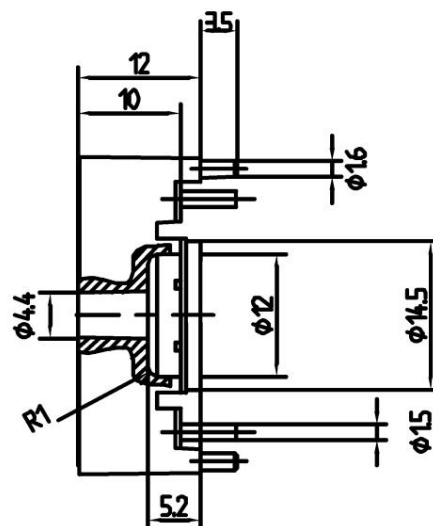
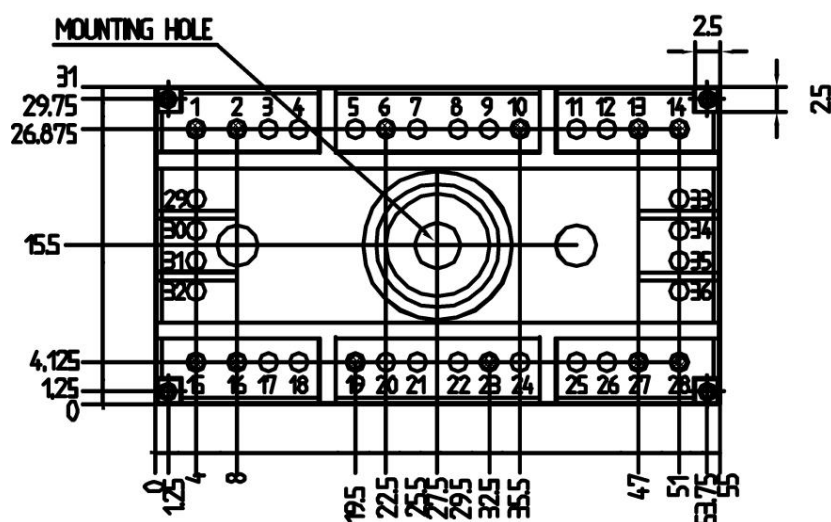
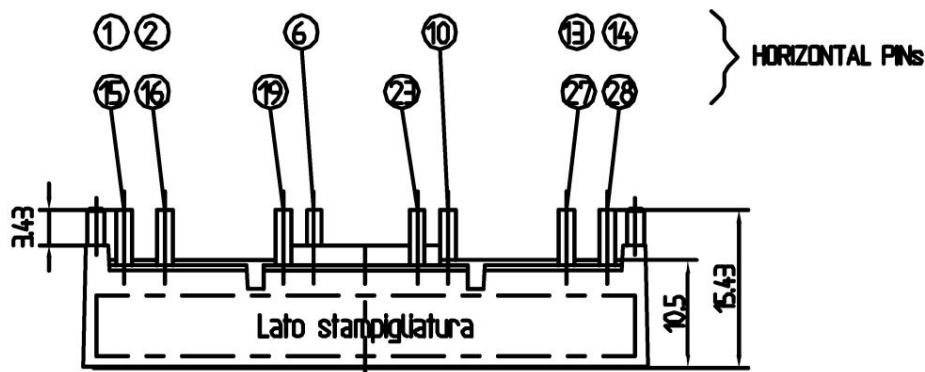
Characteristics <span style="float: right;">Ts = 25°C Unless otherwise specified</span>			
Symbol	Conditions	Values	Units
$I_D$			A
$I_{TAV}/I_{FAV}$			A
$I_{RMS}$	W1C; sin 180°; per phase at Ts = 85 (100)°C	101 (71)	A
$I_{TSM}/I_{FSM}$	$T_{vj} = 25 (125)^\circ C$ ; 10 ms	1500 (1350)	A
$I^2t$	$T_{vj} = 25 (125)^\circ C$ ; 8,3 ... 10 ms	11250 (9100)	A²s
$T_{stg}$		-40... +125	°C
$T_{solder}$	terminals, 10 s	260	°C
Thyristor			
$(dv/dt)_{cr}$	$T_{vj} = 125^\circ C$	1000	V/μs
$(di/dt)_{cr}$	$T_{vj} = 125^\circ C$ ; f = 50...60 Hz	100	A/μs
$t_q$	$T_{vj} = 125^\circ C$ ; typ.	80	μs
$I_H$	$T_{vj} = 25^\circ C$ ; typ. / max.	100 / 200	mA
$I_L$	$T_{vj} = 25^\circ C$ ; $R_G = 33 \Omega$ ; typ. / max.	200 / 500	mA
$V_T$	$T_{vj} = 25^\circ C$ ; ( $I_T = 200 A$ ); max.	1,8	V
$V_{T(TO)}$	$T_{vj} = 125^\circ C$	max. 0,9	V
$r_T$	$T_{vj} = 125^\circ C$	max. 4,5	mΩ
$I_{DD}, I_{RD}$	$T_{vj} = 125^\circ C$ ; $V_{DD} = V_{DRM}$ ; $V_{RD} = V_{RRM}$	max. 20	mA
$R_{th(j-s)}$	per thyristor	0,6	K/W
$T_{vj}$		- 40 ... + 125	°C
$V_{GT}$	$T_{vj} = 25^\circ C$ ; d.c.	2	V
$I_{GT}$	$T_{vj} = 25^\circ C$ ; d.c.	100	mA
$V_{GD}$	$T_{vj} = 125^\circ C$ ; d.c.	0,25	V
$I_{GD}$	$T_{vj} = 125^\circ C$ ; d.c.	5	mA
Diode			
$V_F$	$T_{vj} = ^\circ C$ ; ( $I_F = A$ ); max.		V
$V_{T(O)}$	$T_{vj} = ^\circ C$		V
$r_T$	$T_{vj} = ^\circ C$		mΩ
$I_{RD}$	$T_{vj} = ^\circ C$ ; $V_{RD} = V_{RRM}$		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

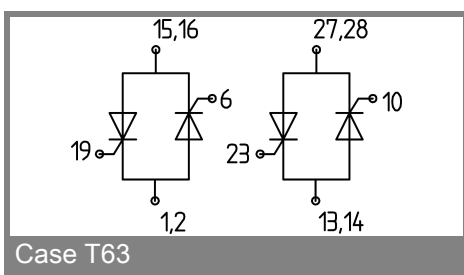
Row 1  
Row 2

Dimensions in mm



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

Case T63 (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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