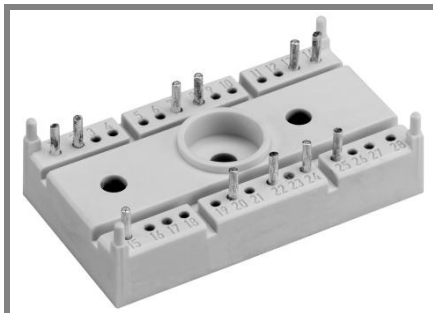


SK 100 WT



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 ($T_s = 85$ °C)
900	800	SK 100 WT 08
1300	1200	SK 100 WT 12
1700	1600	SK 100 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 $T_s = 85$ (100)°C	101 (71)	A
I_{TSM}/I_{FSM}	$T_{vj} = 25$ (125) °C; 10 ms	1500 (1350)	A
I^2t	$T_{vj} = 25$ (125) °C; 8,3 ... 10 ms	11250 (9100)	A²s
T_{stg}		-40... +125	°C
T_{solder}	terminals, 10 s	260	°C

Thyristor

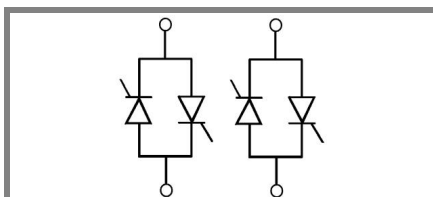
$(dv/dt)_{cr}$	$T_{vj} = 125$ °C	1000	V/μs
$(di/dt)_{cr}$	$T_{vj} = 125$ °C; $f = 50...60$ Hz	100	A/μs
t_q	$T_{vj} = 125$ °C; typ.	80	μs
I_H	$T_{vj} = 25$ °C; typ. / max.	100 / 200	mA
I_L	$T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max.	200 / 500	mA
V_T	$T_{vj} = 25$ °C; ($I_T = 200$ A); max.	1,8	V
$V_{T(TO)}$	$T_{vj} = 125$ °C	max. 0,9	V
r_T	$T_{vj} = 125$ °C	max. 4,5	mΩ
I_{DD}, I_{RD}	$T_{vj} = 125$ °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}	$T_{vj} = 25$ °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
$V_{T(TO)}$	$T_{vj} =$ °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

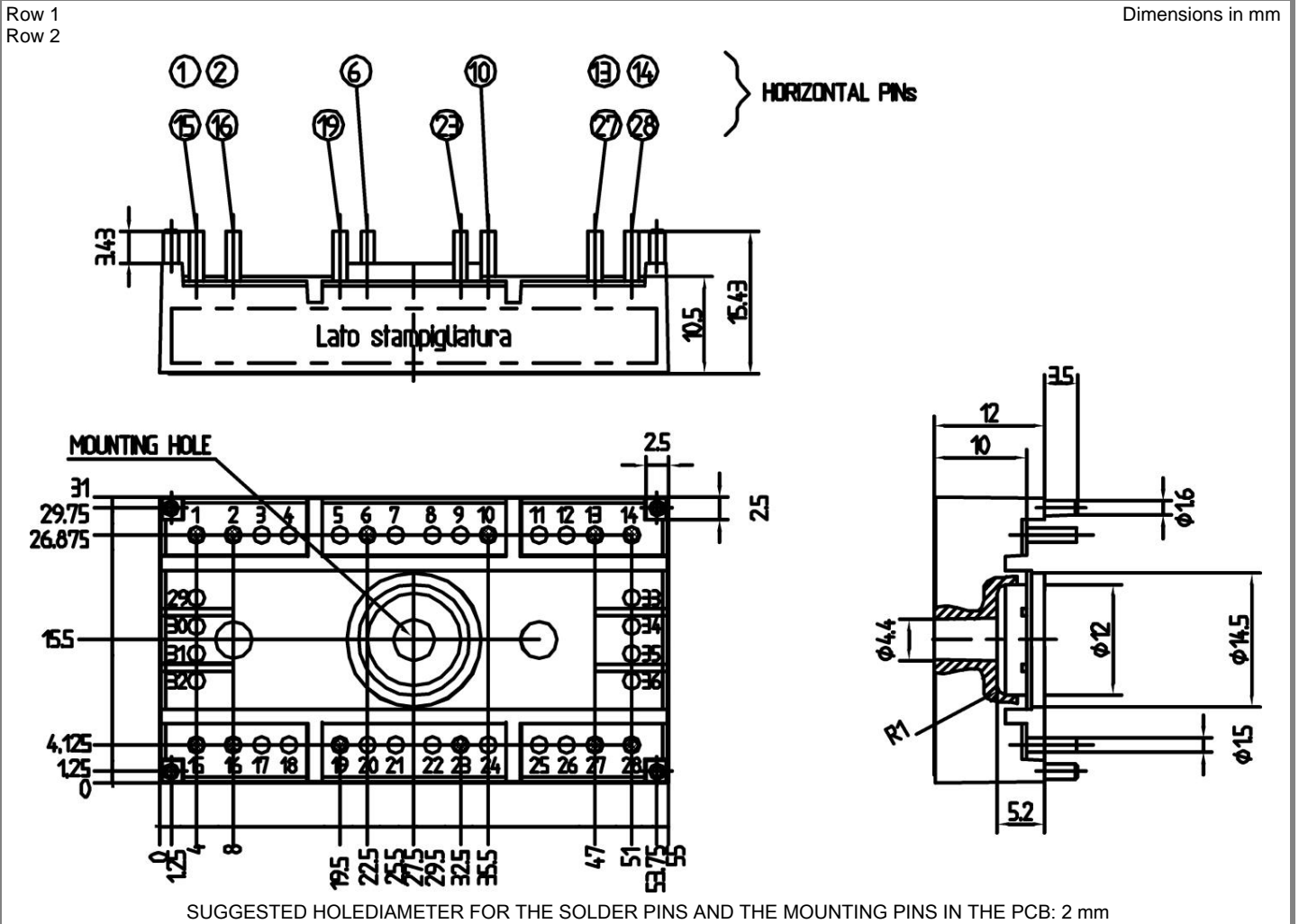
Mechanical data

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	

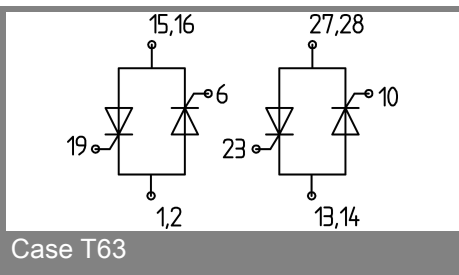


WT

SK 100 WT



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



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

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