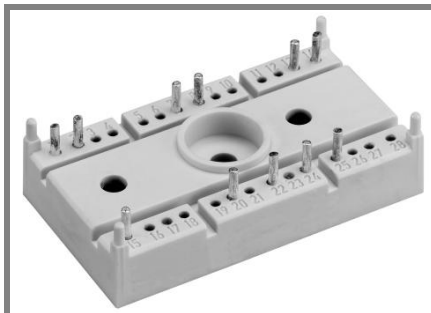


# SK 70 WT



SEMITOP® 3

## Thyristor

### SK 70 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	$I_{RMS} = 72$ 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 $T_s = 85$ (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)	A²s
$T_{stg}$		-40... +125	°C
$T_{solder}$	terminals, 10 s	260	°C

#### Thyristor

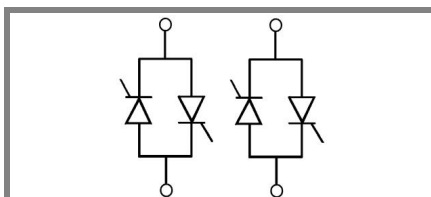
$(dv/dt)_{cr}$	$T_{vj} = 125$ °C	1000	V/μs
$(di/dt)_{cr}$	$T_{vj} = 125$ °C; $f = 50...60$ Hz	50	A/μs
$t_q$	$T_{vj} = 125$ °C; typ.	80	μs
$I_H$	$T_{vj} = 25$ °C; typ. / max.	100 / 200	mA
$I_L$	$T_{vj} = 25$ °C; $R_G = 33$ Ω; typ. / max.	200 / 400	mA
$V_T$	$T_{vj} = 25$ °C; ( $I_T = 120$ A); max.	1,8	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

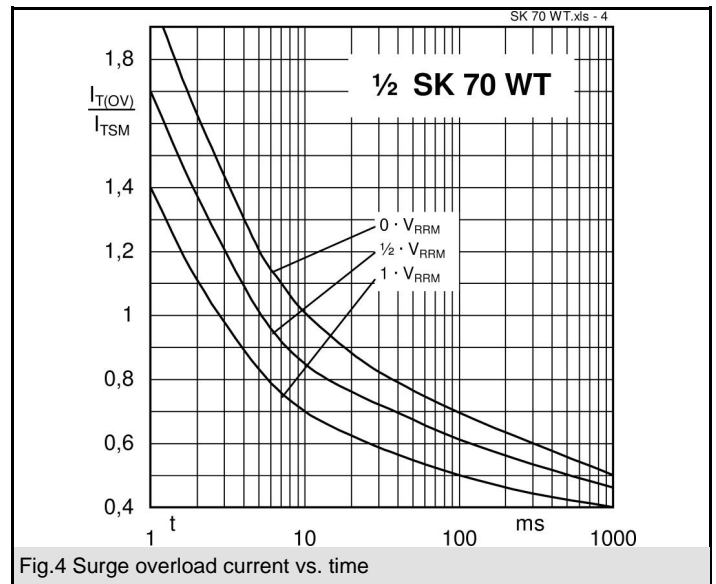
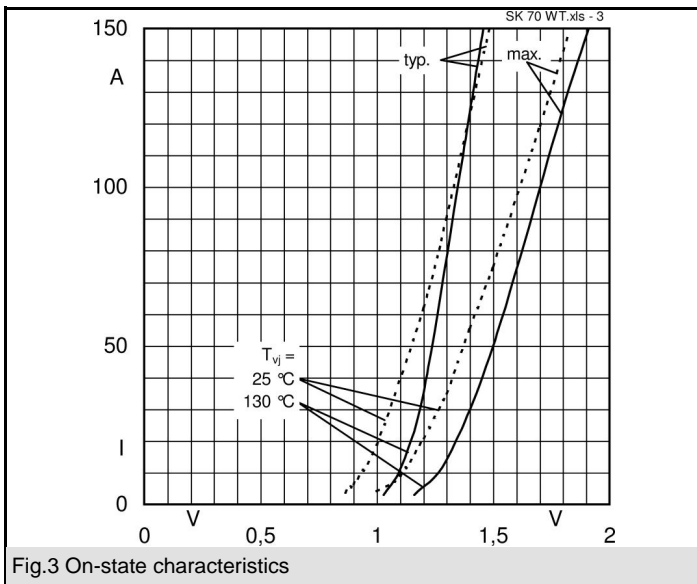
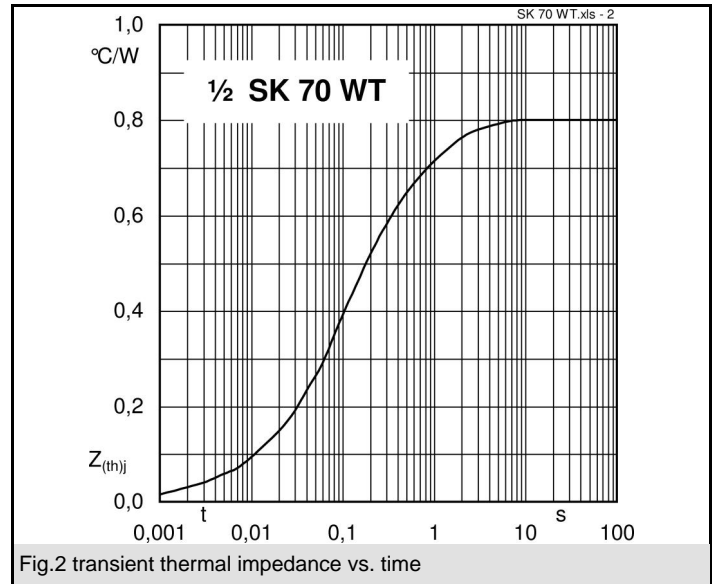
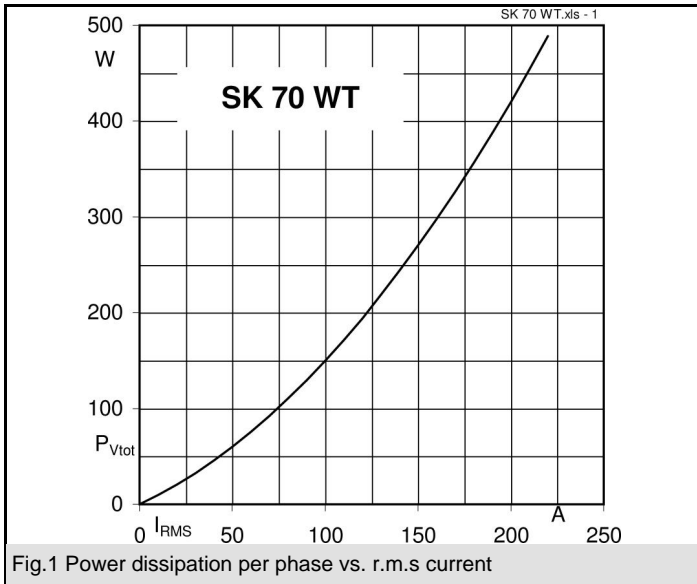
$V_F$	$T_{vj} =$ °C; ( $I_F = A$ ); max.		V
$V_{T(TO)}$	$T_{vj} =$ °C		V
$r_T$	$T_{vj} =$ °C		mΩ
$I_{RD}$	$T_{vj} =$ °C; $V_{RD} = V_{RRM}$		mA
$R_{th(j-s)}$			K/W
$T_{vj}$			°C

#### Mechanical data

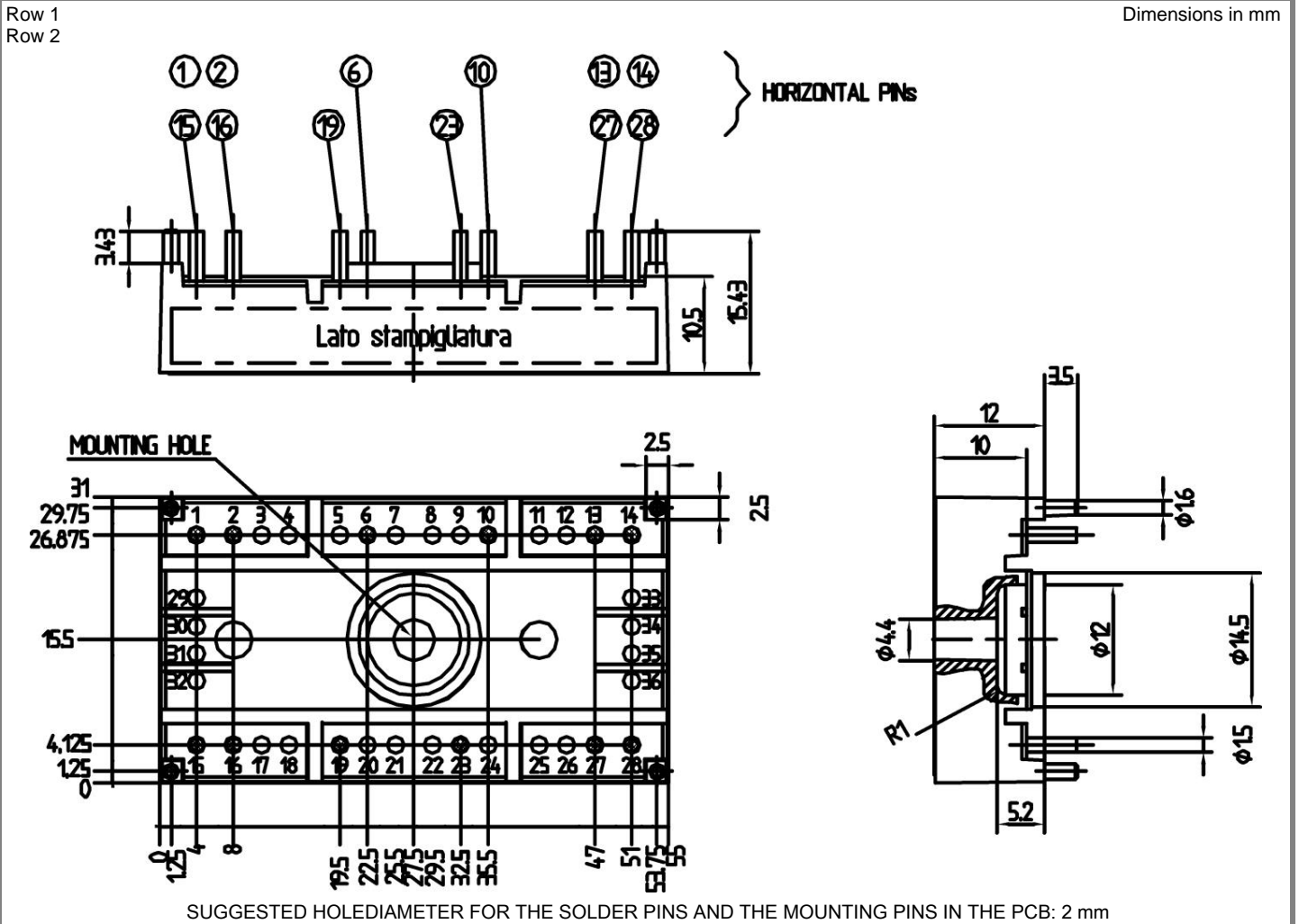
$V_{isol}$	a. c. 50 Hz; r.m.s.; 1 s / 1 min	3000 (2500)	V
$M_1$	mounting torque	2,5	Nm
w		30	g
Case	SEMITOP® 3	T 63	



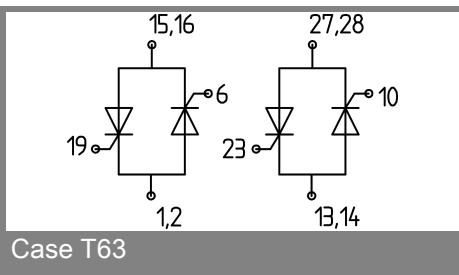
WT



# SK 70 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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