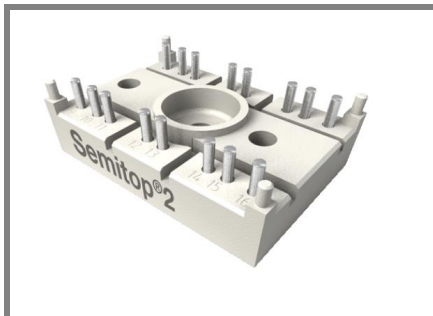


SK 55 TAA



SEMITOP®2

Two separated thyristors

SK 55 TAA

Target Data

Features

- Compact design
- One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DBC)
- Glass passivated thyristor chips
- Up to 1600 reverse voltage
- High surge currents

Typical Applications

- Brake chopper
- Soft starters

V_{RSM} V	V_{RRM}, V_{DRM} V	$I_T = 55$ A ($T_s = 80$ °C)
900	800	SK55TAA08
1300	1200	SK55TAA12
1700	1600	SK55TAA16

Characteristics $T_s = 25$ °C unless otherwise specified

Symbol	Conditions	Values	Units
I_T	$T_s = 100$ °C	36	A
I_T	$T_s = 80$ °C	55	A
			A
I_{TSM}/I_{FSM}	$T_{vj} = 25$ (125) °C; 10 ms	1000 (900)	A
I^2t	$T_{vj} = 25$ (125) °C; half sine wave, 10 ms	5000 (4000)	A ² s
T_{stg}		-40 ... +125	°C
T_{solder}	terminals, 10 s	260	°C

Thyristor

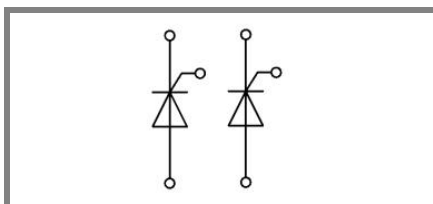
$(dv/dt)_{cr}$	$T_{vj} = 125$ °C	1000	V/ μ s
$(di/dt)_{cr}$	$T_{vj} = 125$ °C; $f = 50 \dots 60$ Hz	50	A/ μ s
t_q	$T_{vj} = 125$ °C; typ.	80	μ s
I_H	$T_{vj} = 25$ °C; typ. / max.	100 / 200	mA
I_L	$T_{vj} = 25$ °C; $R_G = 33$ Ω ; typ. / max.	200 / 500	mA
V_T	$T_{vj} = 25$ °C; ($I_T = 80$ A); max.	1,2	V
$V_{T(TO)}$	$T_{vj} = 125$ °C	max. 0,85	V
r_T	$T_{vj} = 125$ °C	max. 5,7	m Ω
I_{DD}, I_{RD}	$T_{vj} = 125$ °C; $V_{DD} = V_{DRM}, V_{RD} = V_{RRM}$	max. 15	mA
$R_{th(j-s)}$	cont. 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

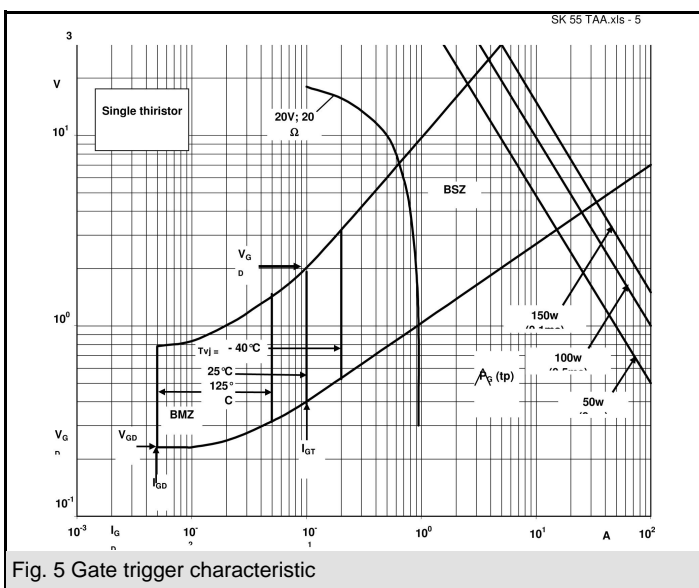
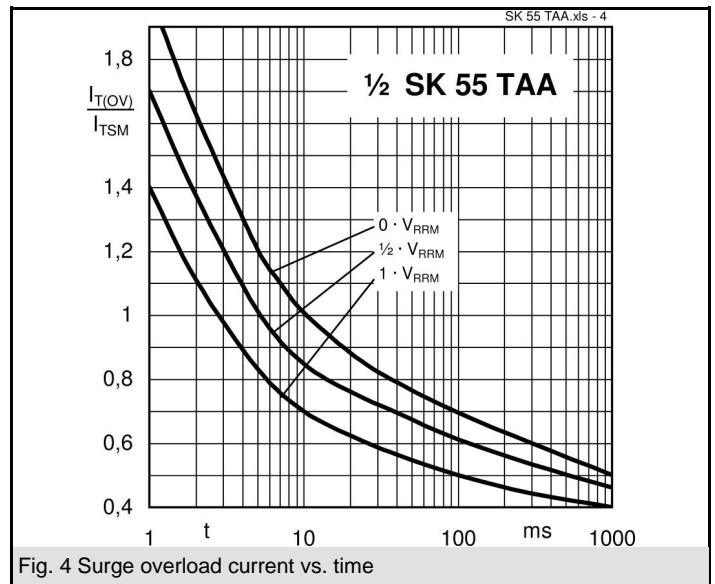
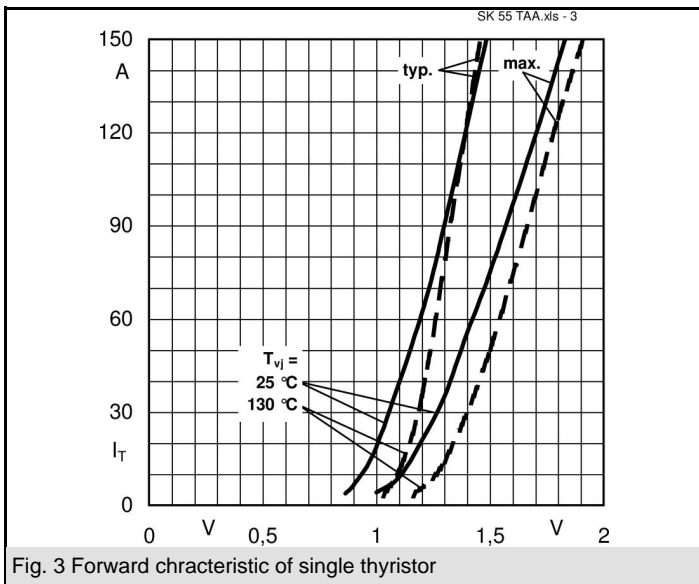
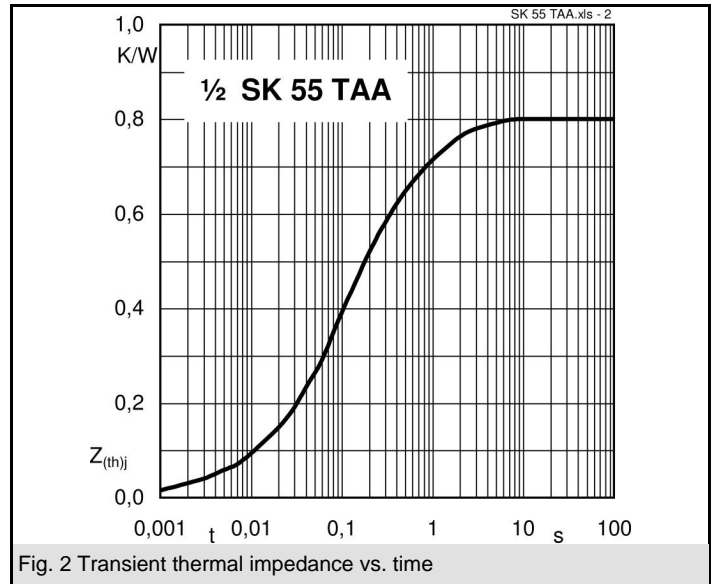
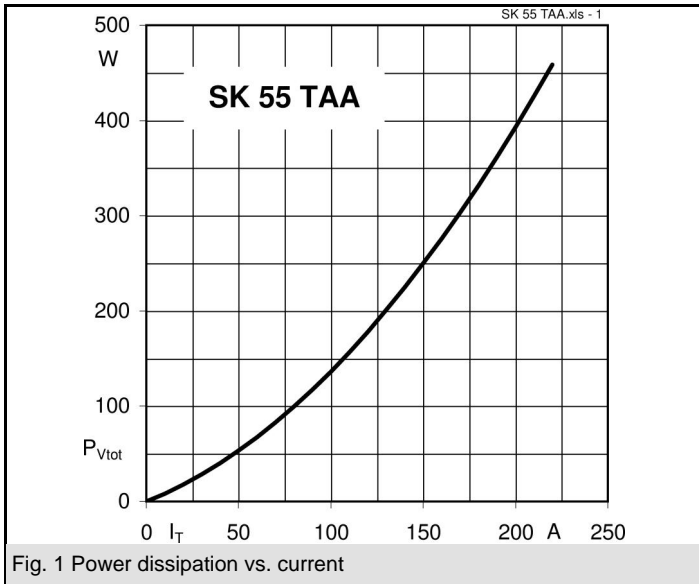
V_F	$T_{vj} =$ °C; ($I_F =$ A); max.		V
$V_{(TO)}$	$T_{vj} =$ °C		V
r_T	$T_{vj} =$ °C		m Ω
I_{RD}	$T_{vj} =$ °C; $V_{RD} = V_{RRM}$		mA
$R_{th(j-s)}$			K/W
T_{vj}			°C

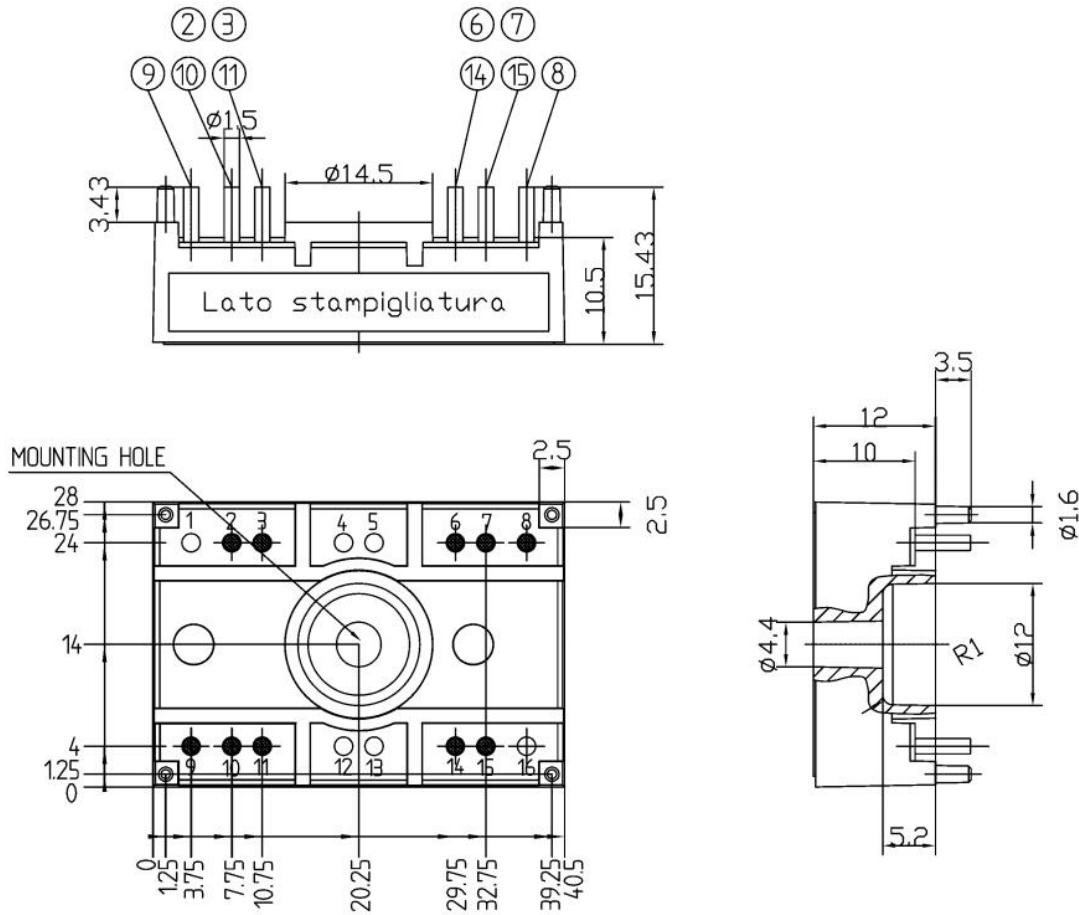
Mechanical data

V_{isol}	AC 50Hz, r.m.s. 1min (1sec)	2500 (3000)	V
M_1	mounting torque	2	Nm
w		19	g
Case	SEMITOP®2	T 81	



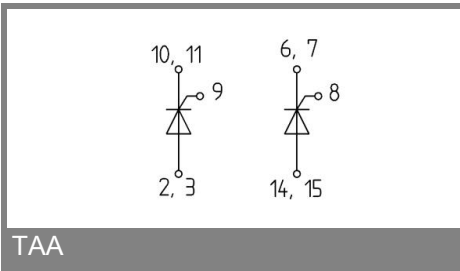
TAA





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

Case T 81 (Suggested hole diameter, in the PCB, for solder pins and plastic mounting pins: 2mm)



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

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