## SK 55 TAA



# SEMITOP®2

## Two separated thyristors

#### **SK 55 TAA**

**Target Data** 

#### **Features**

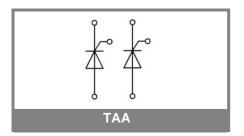
- Compact design
- · One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DBC)
- Glass passivated thyristor chips
- Up to 1600 reverse voltage
- High surge currents

## **Typical Applications\***

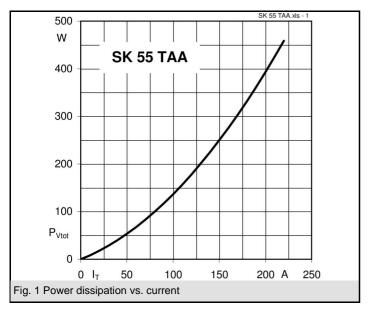
- · Brake chopper
- Soft starters

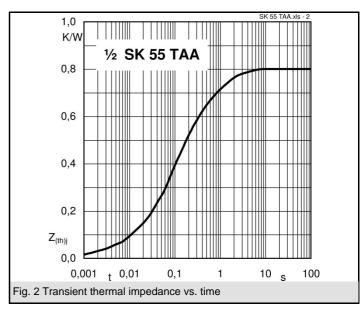
V <sub>RSM</sub> V	V <sub>RRM</sub> , V <sub>DRM</sub>	I <sub>T</sub> = 55 A (T <sub>s</sub> = 80 °C)
900	800	SK55TAA08
1300	1200	SK55TAA12
1700	1600	SK55TAA16

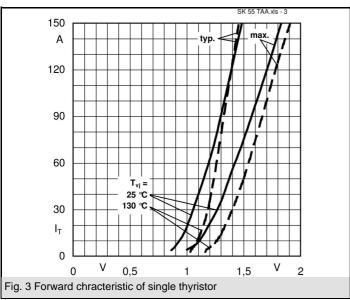
Characteristics		Ts = 25°C unless otherwise specified		
Symbol	Conditions	Values	Units	
I <sub>T</sub>	Ts = 100°C	36	Α	
I <sub>T</sub>	Ts = 80°C	55	Α	
			Α	
I <sub>TSM</sub> /I <sub>FSM</sub>	T <sub>vj</sub> = 25 (125) °C; 10 ms	1000 (900)	Α	
I²t	$T_{vj} = 25 (125) ^{\circ}\text{C}$ ; half sine wave, 10 ms	5000 (4000)	A²s	
T <sub>stg</sub>		-40 + 125	°C	
T <sub>solder</sub>	terminals, 10 s	260	°C	
Thyristor		<u> </u>	•	
(dv/dt) <sub>cr</sub>	T <sub>vi</sub> = 125 °C	1000	V/µs	
(di/dt) <sub>cr</sub>	T <sub>vi</sub> = 125 °C; f = 50 60 Hz	50	A/µs	
$t_q$	T <sub>vi</sub> = 125 °C; typ.	80	μs	
I <sub>H</sub>	T <sub>vi</sub> = 25 °C; typ. / max.	100 / 200	mA	
IL	$T_{vj} = 25  ^{\circ}\text{C};  R_{G} = 33  \Omega ;  \text{typ. / max.}$	200 / 500	mA	
V <sub>T</sub>	$T_{vi} = 25 ^{\circ}\text{C}; (I_T = 80 \text{A}); \text{max}.$	1,2	V	
V <sub>T(TO)</sub>	T <sub>vi</sub> = 125 °C	max. 0,85	V	
r <sub>T</sub>	T <sub>vi</sub> = 125 °C	max. 5,7	mΩ	
I <sub>DD</sub> ; I <sub>RD</sub>	$T_{vj}^{vj} = 125 ^{\circ}\text{C};  V_{DD} = V_{DRM};  V_{RD} = V_{RRM}$	max. 15	mA	
R <sub>th(j-s)</sub>	cont. per thyristor	0,8	K/W	
T <sub>vi</sub>	, ,	-40 <b>+130</b>	°C	
V <sub>GT</sub>	T <sub>vi</sub> = 25 °C; d.c.	2	V	
I <sub>GT</sub>	$T_{vi}^{vj} = 25 ^{\circ}\text{C}; \text{d.c.}$	100	mA	
V <sub>GD</sub>	$T_{vi}^{vj}$ = 125 °C; d.c.	0,25	V	
I <sub>GD</sub>	T <sub>vi</sub> = 125 °C; d.c.	5	mA	
Diode	1 3	1	II	
$V_{F}$	$T_{vi} = {^{\circ}C}; (I_F = A); max.$	I	V	
V <sub>(TO)</sub>	T <sub>vi</sub> = °C		V	
r <sub>T</sub>	$T_{vi}^{vj} = {^{\circ}C}$		mΩ	
I <sub>RD</sub>	$T_{vj} = {^{\circ}C}; V_{RD} = V_{RRM}$		mA	
R <sub>th(j-s)</sub>	,		K/W	
T <sub>vi</sub>			°C	
Mechanic	al data	•	•	
V <sub>isol</sub>	AC 50Hz, r.m.s. 1min (1sec)	2500 (3000)	V	
M <sub>1</sub>	mounting torque	2	Nm	
w		19	g	
Case	SEMITOP®2	T 81		

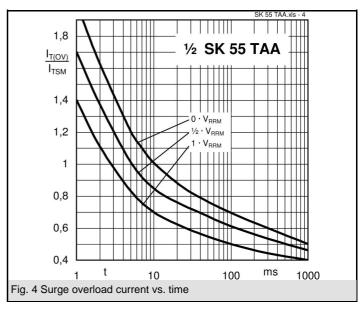


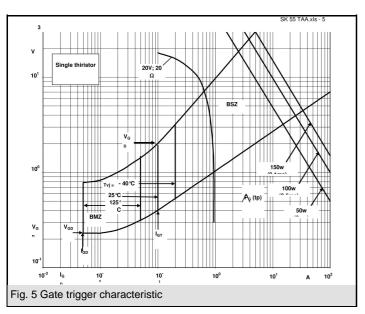
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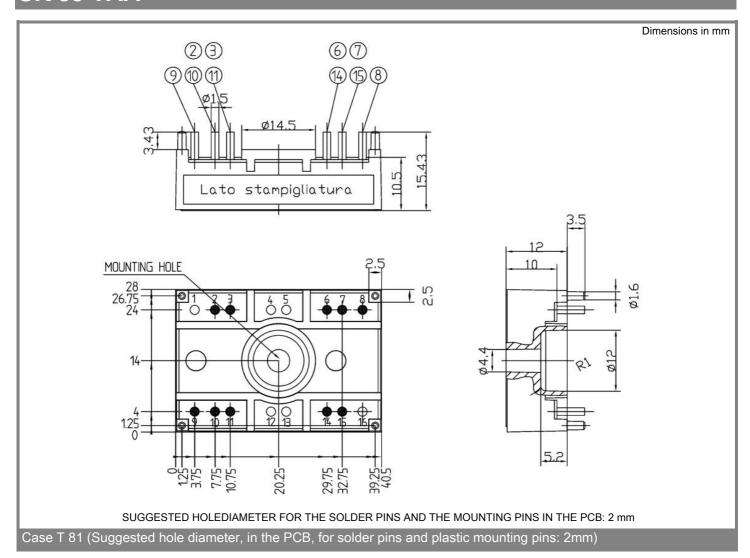


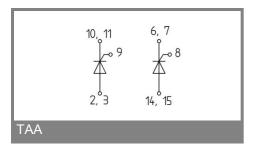












This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, Chapter IX.

\* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our personal.