# SK 75 TAA



# SEMITOP®2

### Two separated thyristors

#### **SK 75 TAA**

**Target Data** 

#### **Features**

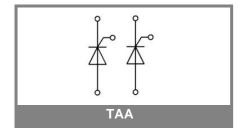
- · Compact design
- · One screw mounting
- Heat transfer and isolation through direct copper bonded aluminium oxide ceramic (DBC)
- Glass passivated thyristor chips
- Up to 1600 reverse voltage
- High surge currents

### **Typical Applications**

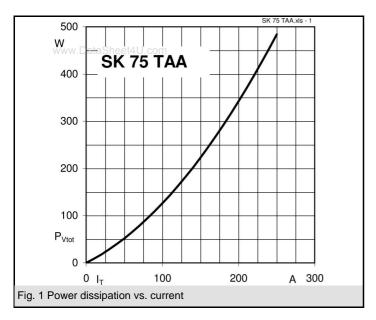
- Brake chopper
- Soft starters

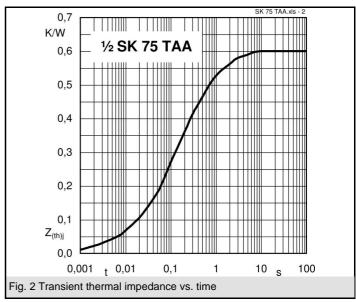
V <sub>RSM</sub> V	V <sub>RRM</sub> , V <sub>DRM</sub> V	I <sub>T</sub> = 75 A (T <sub>s</sub> = 80 °C)
900	800	SK75TAA08
1300	1200	SK75TAA12
1700	1600	SK75TAA16

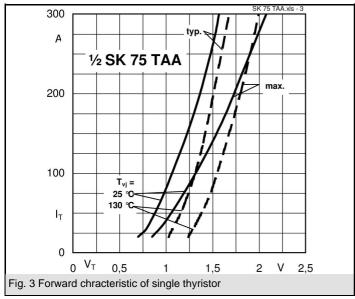
Characteristics		Ts = 25°C unless otherwise specified		
Symbol	Conditions	Values	Units	
I <sub>T</sub>	Ts = 100°C	47	Α	
I <sub>T</sub>	Ts = 80°C	75	Α	
			Α	
I <sub>TSM</sub> /I <sub>FSM</sub>	T <sub>vj</sub> = 25 (125) °C; 10 ms	1500 (1350)	Α	
l²t	$T_{vj} = 25 (125)  ^{\circ}\text{C}$ ; half sine wave, 10 ms	11250 (9100)	A²s	
T <sub>stg</sub>		-40 + 125	°C	
T <sub>solder</sub>	terminals, 10 s	260	°C	
Thyristor				
(dv/dt) <sub>cr</sub>	T <sub>vj</sub> = 125 °C	1000	V/µs	
(di/dt) <sub>cr</sub>	T <sub>vj</sub> = 125 °C; f = 50 60 Hz	50	A/µs	
$t_q$	$T_{vj} = 125 ^{\circ}\text{C}; \text{ typ.}$	80	μs	
I <sub>H</sub>	$T_{vi} = 25 ^{\circ}\text{C}$ ; typ. / max.	100 / 200	mA	
IL	$T_{v_i} = 25 \text{ °C}; R_G = 33 \Omega; \text{ typ. / max.}$	200 / 500	mA	
V <sub>T</sub>	$T_{vi} = 25  ^{\circ}\text{C}; (I_{T} = 200  \text{A});  \text{max}.$	1,8	V	
$V_{T(TO)}$	T <sub>vi</sub> = 125 °C	max. 0,9	V	
r <sub>T</sub>	T <sub>vi</sub> = 125 °C	max. 4,5	mΩ	
I <sub>DD</sub> ; I <sub>RD</sub>	$T_{vj}^{yj} = 125 \text{ °C; } V_{DD} = V_{DRM}; V_{RD} = V_{RRM}$	max. 20	mA	
R <sub>th(j-s)</sub>	cont. per thyristor	0,6	K/W	
T <sub>vi</sub>		-40 <b>+</b> 125	°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>	$T_{vi}^{yj} = 125 ^{\circ}\text{C}; \text{d.c.}$	0,25	V	
I <sub>GD</sub>	$T_{vi} = 125 ^{\circ}\text{C}; \text{d.c.}$	5	mA	
Diode	1 9			
$V_{F}$	$T_{vi} = {^{\circ}C}; (I_F = A); max.$		V	
V <sub>(TO)</sub>	$T_{vi} = {^{\circ}C}$		V	
r <sub>T</sub>	$T_{vi}^{vj} = {^{\circ}C}$		mΩ	
I <sub>RD</sub>	$T_{vj}^{yj} = {^{\circ}C}; V_{RD} = V_{RRM}$		mA	
R <sub>th(j-s)</sub>	vj 100 mm		K/W	
T <sub>vi</sub>			°C	
Mechanical data				
$V_{isol}$	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		

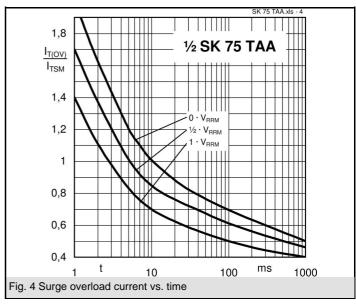


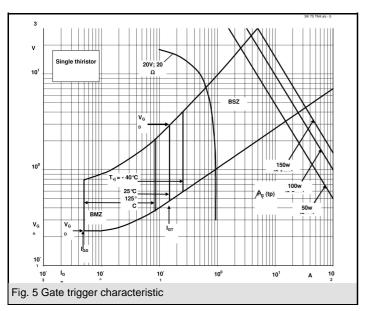
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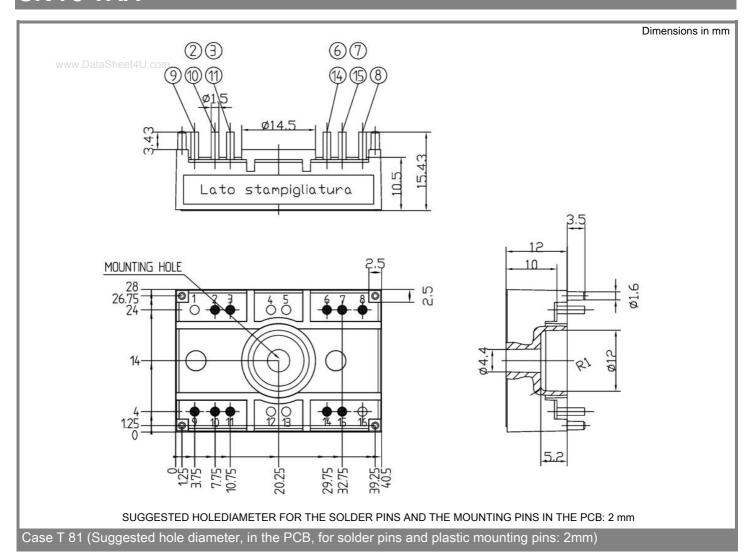


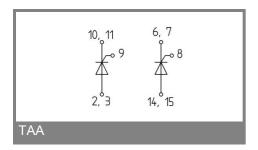












This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, Chapter IX.

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