

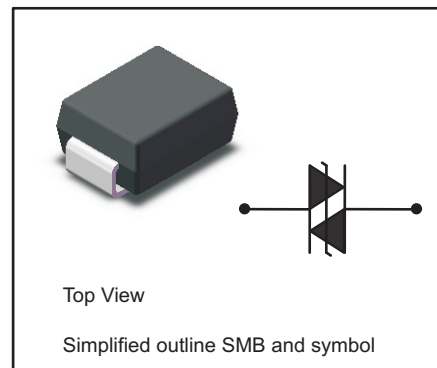
## 1-Line, Bi-directional, Thyristor Surge Suppressors

### DESCRIPTION

TSS thyristors are a type of semiconduct component. They are designed for transient surge protection.

### FEATURES

- Excellent capability of absorbing transient surge
- Quick response to surge voltage (ns Level)
- Eliminates overvoltage caused by fast rising transients
- Does not degrade surge capability after multiple surge within limit
- Fails short circuit when surged in excess of ratings
- Low leakage current



### MECHANICAL DATA

- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.09g / 0.003oz

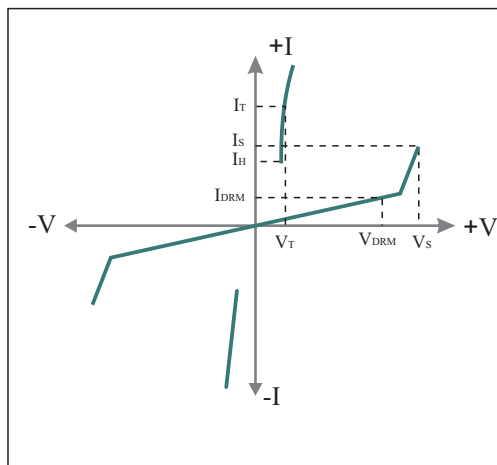
### ABSOLUTE MAXIMUM RATINGS(TA=25°C,RH=45%-75%,unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	$T_{stg}$	-55 to+150	°C
Operating junction temperature range	$T_j$	Product of VDRM ≤ 90V	-55 to+125
		Product of VDRM > 90V	-55 to+150
Repetitive peak pulse current (10/1000us)	$I_{PP}$	45 *1	A
		80 *2	
		100 *3	

Note: \*1 suffix A;\*2 suffix B;\*3 suffix C.

### ELECTRICAL CHARACTERISTICS (TA=25°C)

Symbol	Parameter
$V_{DRM}$	Peak off-state voltage
$I_{DRM}$	Peak off-state current
$V_S$	Switching voltage
$I_S$	Switching current
$V_T$	On-state voltage
$I_T$	On-state current
$I_H$	Holding current
$C_o$	Off-state capacitance
$V_{BR}$	Reverse breakdown voltage
$I_{BR}$	Test current





ELECTRICAL CHARACTERISTICS(Ta=25°C,continued)

Part Number	V <sub>DRM</sub>	I <sub>DRM</sub>	V <sub>s</sub>	I <sub>s</sub>	I <sub>H</sub>	V <sub>T</sub>	I <sub>T</sub>	Co <sup>(1)</sup>	Marking
	V	μA	V	mA	mA	V	A	pF	
	Min.	Max.	Max.	Max.	Min.	Max.	Max.	Typ.	
P0080SA	6	5	25	800	50	4	2.2	80	P-8A
P0300SA	25	5	40	800	50	4	2.2	40	P03A
P0640SA	58	5	77	800	120	4	2.2	65	P06A
P0720SA	65	5	88	800	120	4	2.2	65	P07A
P0900SA	75	5	98	800	120	4	2.2	50	P09A
P1100SA	90	5	130	800	120	4	2.2	50	P11A
P1300SA	120	5	160	800	120	4	2.2	50	P13A
P1500SA	140	5	180	800	120	4	2.2	50	P15A
P1800SA	170	5	220	800	120	4	2.2	60	P18A
P2100SA	180	5	240	800	120	4	2.2	60	P21A
P2300SA	190	5	260	800	120	4	2.2	60	P23A
P2600SA	220	5	300	800	120	4	2.2	50	P26A
P3100SA	275	5	350	800	120	4	2.2	40	P31A
P3500SA	320	5	400	800	120	4	2.2	40	P35A

(1) Off-state capacitance is measured in V<sub>DC</sub>=2V,f=1MHz



ELECTRICAL CHARACTERISTICS(Ta=25°C,continued)

Part Number	V <sub>DRM</sub>	I <sub>DRM</sub>	V <sub>s</sub>	I <sub>s</sub>	I <sub>H</sub>	V <sub>T</sub>	I <sub>T</sub>	Co <sup>(1)</sup>	Marking
	V	uA	V	mA	mA	V	A	pF	
	Min.	Max.	Max.	Max.	Min.	Max.	Max.	Typ.	
P0080SB	6	5	25	800	50	4	2.2	100	P-8B
P0300SB	25	5	40	800	50	4	2.2	50	P03B
P0640SB	58	5	77	800	120	4	2.2	80	P06B
P0720SB	65	5	88	800	120	4	2.2	80	P07B
P0900SB	75	5	98	800	120	4	2.2	70	P09B
P1100SB	90	5	130	800	120	4	2.2	65	P11B
P1300SB	120	5	160	800	120	4	2.2	60	P13B
P1500SB	140	5	180	800	120	4	2.2	60	P15B
P1800SB	170	5	220	800	120	4	2.2	80	P18B
P2100SB	180	5	240	800	120	4	2.2	80	P21B
P2300SB	190	5	260	800	120	4	2.2	80	P23B
P2600SB	220	5	300	800	120	4	2.2	70	P26B
P3100SB	275	5	350	800	120	4	2.2	50	P31B
P3500SB	320	5	400	800	120	4	2.2	45	P35B

(1) Off-state capacitance is measured in V<sub>DC</sub>=2V,f=1MHz



ELECTRICAL CHARACTERISTICS(Ta=25°C,continued)

Part Number	V <sub>DRM</sub>	I <sub>DRM</sub>	V <sub>s</sub>	I <sub>s</sub>	I <sub>H</sub>	V <sub>T</sub>	I <sub>T</sub>	Co <sup>(1)</sup>	Marking
	V	uA	V	mA	mA	V	A	pF	
	Min.	Max.	Max.	Max.	Min.	Max.	Max.	Typ.	
P0080SC	6	5	25	800	50	4	2.2	120	P-8C
P0300SC	25	5	40	800	50	4	2.2	60	P03C
P0640SC	58	5	77	800	120	4	2.2	100	P06C
P0720SC	65	5	88	800	120	4	2.2	100	P07C
P0900SC	75	5	98	800	120	4	2.2	100	P09C
P1100SC	90	5	130	800	120	4	2.2	90	P11C
P1300SC	120	5	160	800	120	4	2.2	90	P130C
P1500SC	140	5	180	800	120	4	2.2	90	P15C
P1800SC	170	5	220	800	120	4	2.2	100	P18C
P2100SC	180	5	240	800	120	4	2.2	100	P21C
P2300SC	190	5	260	800	120	4	2.2	100	P23C
P2600SC	220	5	300	800	120	4	2.2	80	P26C
P3100SC	275	5	350	800	120	4	2.2	70	P31C
P3500SC	320	5	400	800	120	4	2.2	65	P35C

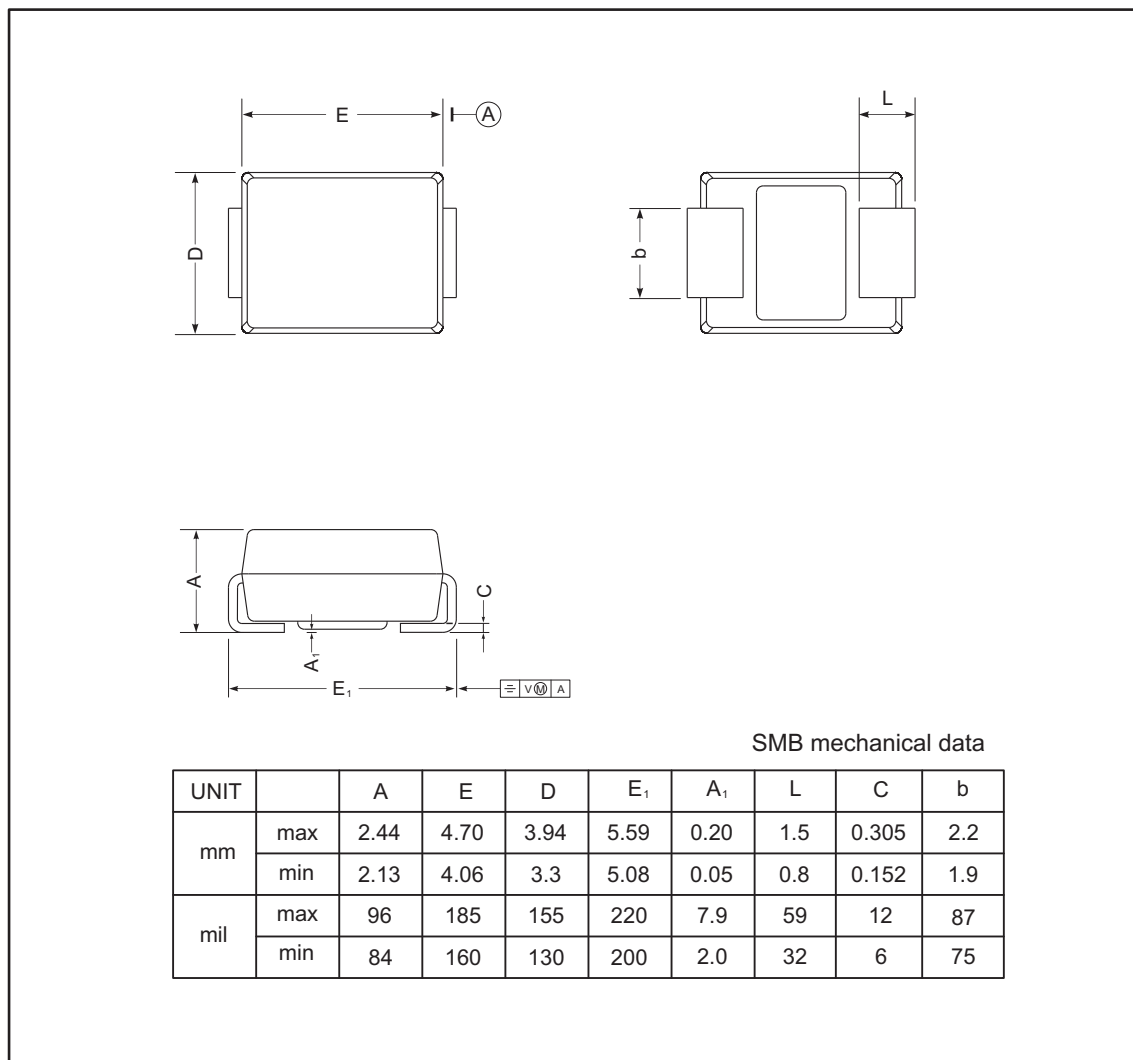
(1) Off-state capacitance is measured in V<sub>DC</sub>=2V,f=1MHz



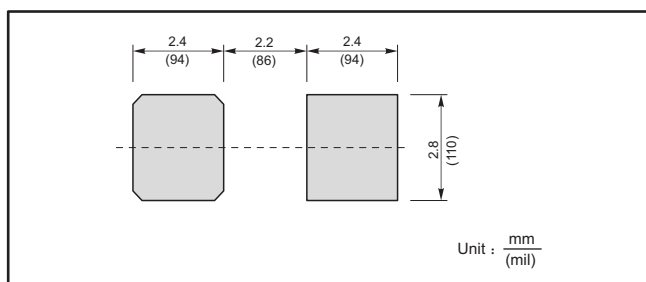
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMB



The recommended mounting pad size







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