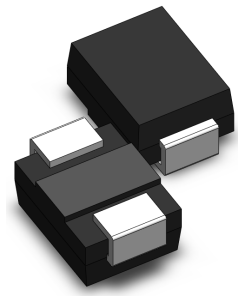
P0080SB - P5000SB

THYRISTOR SURGE SUPPRESSORS TSS



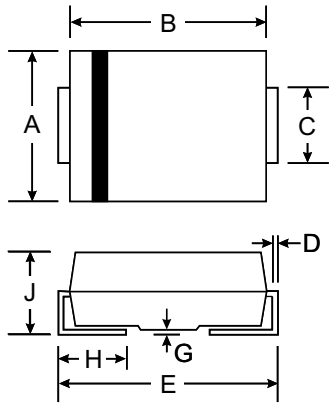
Features

- Low voltage overshoot
- Low on-state voltage
- Does not degrade surge capability after multiple surge events within limit
- Fails short circuit when surged in excess of ratings
- Low Capacitance

Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated Terminal -
- Solderable per MIL-STD-202, Method 208
- Polarity: None; Bi-Directional Devices Have No Polarity Indicator
- Weight: 0.093 grams (approx.)

RoHS COMPLIANT



SMB(DO-214AA)		
Dim	**Min**	**Max**
A	3.30	3.94
B	4.06	4.70
C	1.91	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

SurgeRatings

Series	**2/10 S[1]**	**8/20 S[1]**	**10/160 S[1]**	**10/560 S[1]**	**10/1000 S[1]**	**5/310 S[1]**	**I_{TSM} 50/60 Hz**	**di/dt**
	2/10 S[2]	**1.2/50 S[2]**	**10/160 S[2]**	**10/560 S[2]**	**10/1000 S[2]**	**10/700 S[2]**		
	A min	**A min**	**A min**	**A min**	**A min**	**A min**	**A min**	**Amps/ s max**
B	250	250	150	100	80	100	30	500

Notes:
1. Current waveform in µs
2. Voltage waveform in µs

- Peak pulse current rating (I_{PP}) is repetitive and guaranteed for the life of the product.
- I_{PP} ratings applicable over temperature range of -40 C to +85 C
- The device must initially be in thermal equilibrium with -40°C < T_J < +150°C

Thermal Considerations

Symbol	Parameter	**Value**	**Unit**
T_J	Operating Junction Temperature Range	- 40 to + 150	°C
T_S	Storage Temperature Range	- 40 to +150	°C
$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	90	°C/W

Part Number	V_{DRM} @I_{DRM}=5 A	V_S @100V/ S	V_T @I_T=2.2A	I_S	I_T	I_H	C_0 1MHz	
	V min	V max	V max	mA max	A max	mA min	pF min	pF max
P0080SB	6	25	4	800	2.2	50	25	150
P0300SB	25	40	4	800	2.2	50	15	140
P0640SB	58	77	4	800	2.2	150	40	60
P0720SB	65	88	4	800	2.2	150	35	60
P0900SB	75	98	4	800	2.2	150	25	55
P1100SB	90	130	4	800	2.2	150	30	50
P1300SB	120	160	4	800	2.2	150	25	45
P1500SB	140	180	4	800	2.2	150	25	40
P1800SB	170	220	4	800	2.2	150	25	35
P2000SB	180	220	4	800	2.2	150	20	35
P2300SB	190	260	4	800	2.2	150	25	35
P2600SB	220	300	4	800	2.2	150	20	35
P3100SB	275	350	4	800	2.2	150	20	35
P3500SB	320	400	4	800	2.2	150	20	35
P4000SB	360	460	4	800	2.2	150	20	35
P4500SB	400	540	4	800	2.2	150	20	35
P5000SB	440	600	4	800	2.2	150	20	35

Notes:

- Absolute maximum ratings measured at T_A= 25 C (unless otherwise noted).
- Devices are bi-directional.

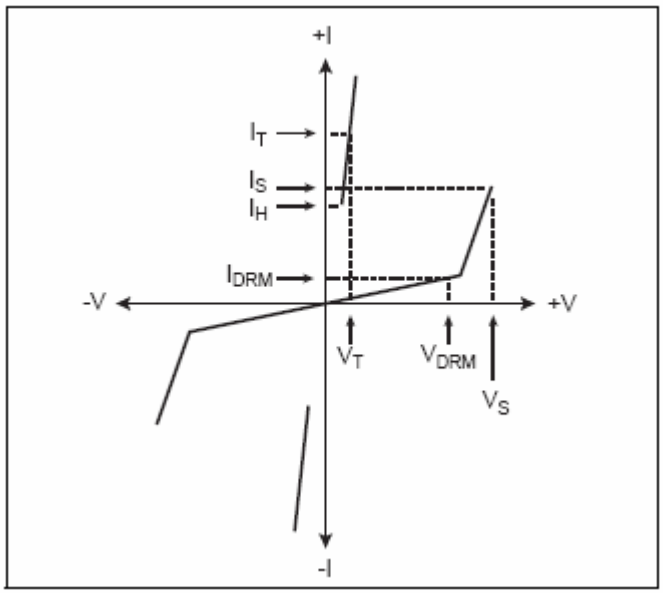


Figure1 V-I Characteristics

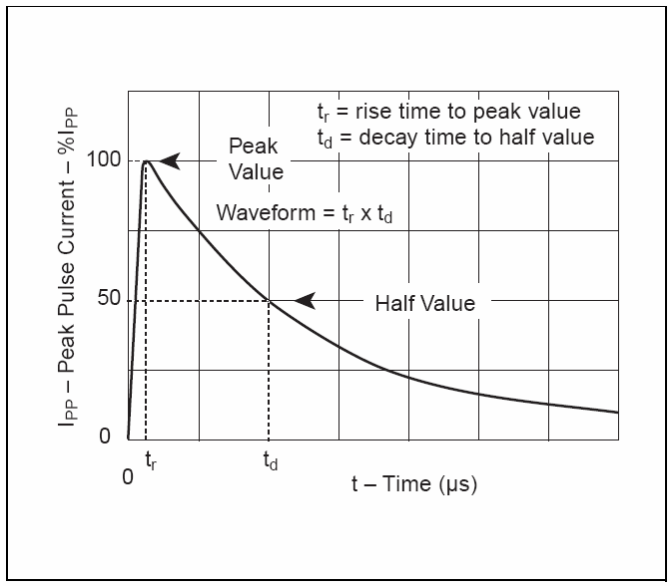


Figure2 tr x td Pulse Wave-form

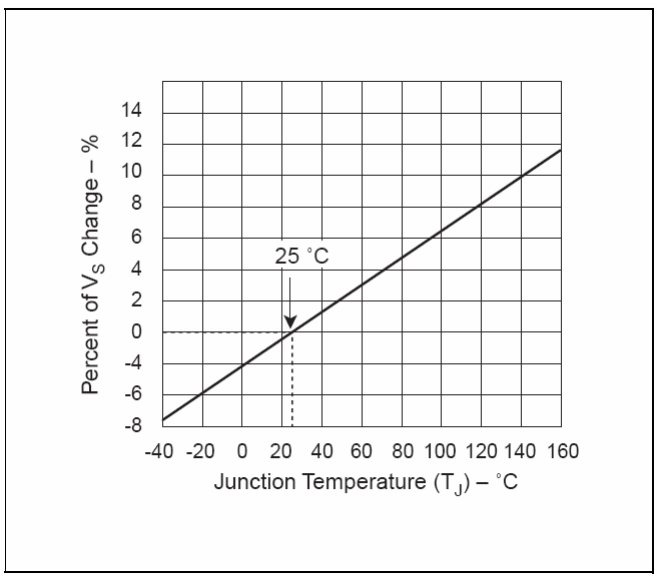


Figure3
Normalized V_S Change versus Junction Temperature

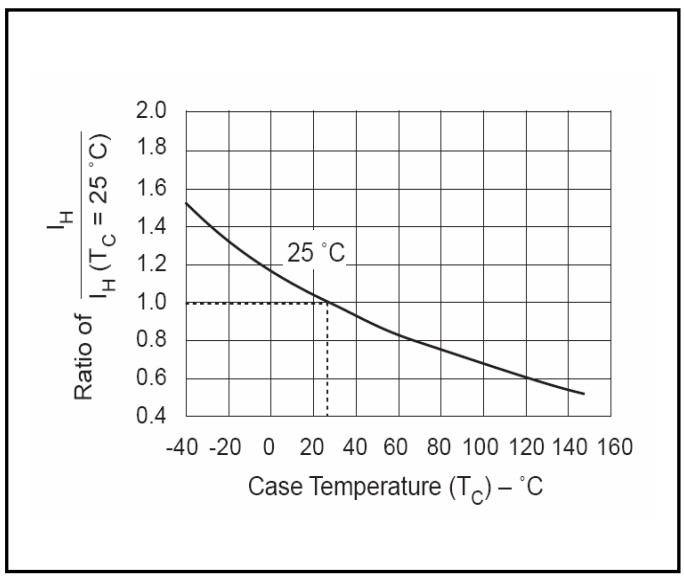


Figure4
Normalized DC Holding Current