

SMB TSS SERIES

Thyristor Surge Suppressors



Features

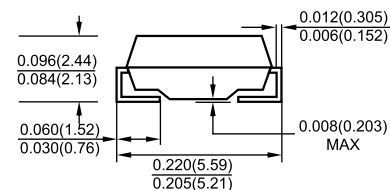
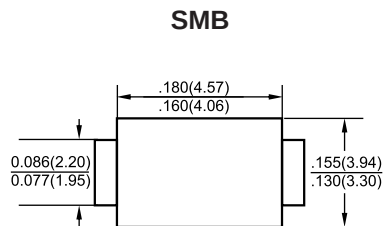
- Low switching voltage
- Low on-state voltage
- Does not degrade surge capability after multiple surge events within limit
- Fails short circuit when surged in excess of ratings
- Low Capacitance

Typical Applications

- Protect circuit

Mechanical Data

- **Package:** DO-214AA (SMB)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

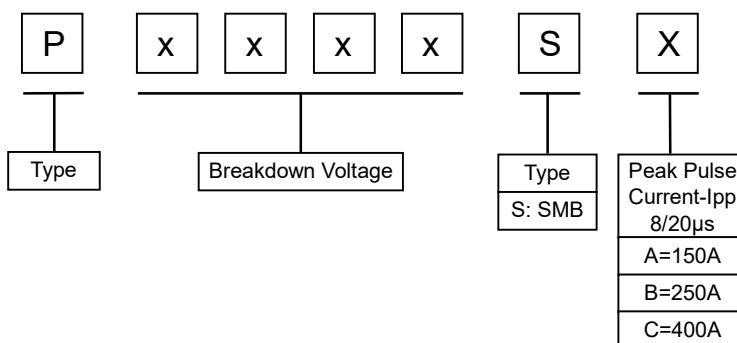


Dimensions in inches and (millimeters)

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Max
Storage temperature	T _{stg}	°C	-55~+150
Junction temperature	T _j	°C	-55~+150

Part Number Code





Electrical Characteristics

Part Number	V_{DRM} (V)	V_S (V)	V_T (V)	I_{DRM} (μA)	I_S (mA)	I_T (A)	I_H (mA)	C_O (pF)	Marking
P0080SA	6	25	4	5	800	2.2	50	45	P008A
P0080SB	6	25	4	5	800	2.2	50	60	P008B
P0080SC	6	25	4	5	800	2.2	50	75	P008C
P0300SA	25	40	4	5	800	2.2	50	45	P03A
P0300SB	25	40	4	5	800	2.2	50	65	P03B
P0300SC	25	40	4	5	800	2.2	50	75	P03C
P0640SA	58	77	4	5	800	2.2	150	35	P06A
P0640SB	58	77	4	5	800	2.2	150	45	P06B
P0640SC	58	77	4	5	800	2.2	150	55	P06C
P0720SA	65	88	4	5	800	2.2	150	50	P07A
P0720SB	65	88	4	5	800	2.2	150	45	P07B
P0720SC	65	88	4	5	800	2.2	150	60	P07C
P0900SA	75	98	4	5	800	2.2	150	40	P09A
P0900SB	75	98	4	5	800	2.2	150	40	P09B
P0900SC	75	98	4	5	800	2.2	150	65	P09C
P1100SA	90	130	4	5	800	2.2	150	35	P11A
P1100SB	90	130	4	5	800	2.2	150	40	P11B
P1100SC	90	130	4	5	800	2.2	150	55	P11C
P1300SA	120	160	4	5	800	2.2	150	35	P13A
P1300SB	120	160	4	5	800	2.2	150	40	P13B
P1300SC	120	160	4	5	800	2.2	150	90	P13C
P1500SA	140	180	4	5	800	2.2	150	40	P15A
P1500SB	140	180	4	5	800	2.2	150	35	P15B
P1500SC	140	180	4	5	800	2.2	150	50	P15C
P1800SA	170	220	4	5	800	2.2	150	40	P18A
P1800SB	170	220	4	5	800	2.2	150	65	P18B
P1800SC	170	220	4	5	800	2.2	150	55	P18C
P2000SA	180	220	4	5	800	2.2	150	40	P20A



Part Number	V_{DRM} (V)	V_S (V)	V_T (V)	I_{DRM} (μA)	I_S (mA)	I_T (A)	I_H (mA)	C_O (pF)	Marking
P2000SB	180	220	4	5	800	2.2	150	60	P20B
P2000SC	180	220	4	5	800	2.2	150	85	P20C
P2300SA	190	260	4	5	800	2.2	150	45	P23A
P2300SB	190	260	4	5	800	2.2	150	60	P23B
P2300SC	190	260	4	5	800	2.2	150	65	P23C
P2600SA	220	300	4	5	800	2.2	150	35	P26A
P2600SB	220	300	4	5	800	2.2	150	45	P26B
P2600SC	220	300	4	5	800	2.2	150	65	P26C
P3100SA	275	350	4	5	800	2.2	150	35	P31A
P3100SB	275	350	4	5	800	2.2	150	45	P31B
P3100SC	275	350	4	5	800	2.2	150	55	P31C
P3500SA	320	400	4	5	800	2.2	150	30	P35A
P3500SB	320	400	4	5	800	2.2	150	40	P35B
P3500SC	320	400	4	5	800	2.2	150	50	P35C
P4000SA	360	460	4	5	800	2.2	150	20	P40A
P4000SB	360	460	4	5	800	2.2	150	40	P40B
P4000SC	360	460	4	5	800	2.2	150	45	P40C
P4500SA	400	540	4	5	800	2.2	150	20	P45A
P4500SB	400	540	4	5	800	2.2	150	40	P45B
P4500SC	400	540	4	5	800	2.2	150	45	P45C
P5000SA	440	600	4	5	800	2.2	150	20	P50A
P5000SB	440	600	4	5	800	2.2	150	40	P50B
P5000SC	440	600	4	5	800	2.2	150	45	P50C

Notes:

- All measurements are made at an ambient temperature of 25°C. I_{PP} applies to -40°C through +85°C temperature range.
- Off-state capacitance(C_O) is measured at 1 MHz with a 2V bias and is typical value.
- For surge ratings, see table below.

For individual “SA”, “SB”, and “SC” surge ratings, see table below.

Series	I_{pp} 2/10us (A)	I_{pp} 8/20us (A)	I_{pp} 10/160us (A)	I_{pp} 10/560us (A)	I_{pp} 10/1000us (A)	I_{TSM} 60Hz (A)	di/dt (A/ μ S)
	Min	Min	Min	Min	Min	Min	Min
A	150	150	90	50	45	20	500
B	250	250	150	100	80	30	500
C	500	400	200	150	100	50	500

■ Characteristics (Typical)

FIG1: V-I Characteristics

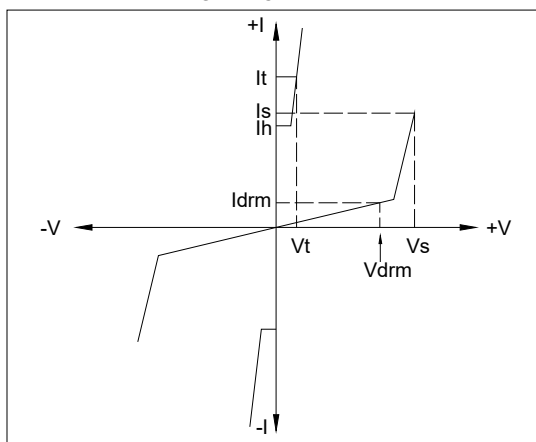


FIG2: $t_r \cdot t_d$ Pulse Wave-form

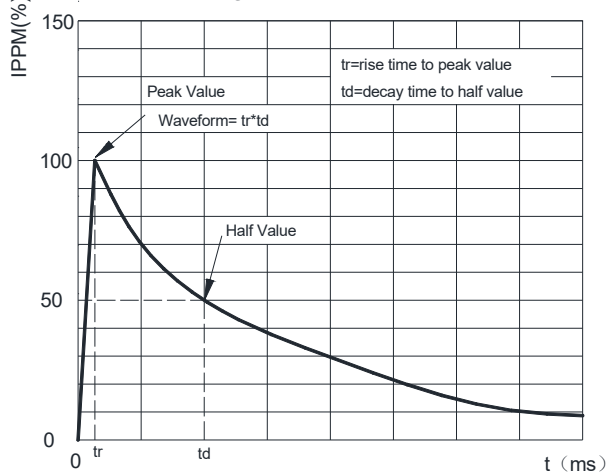


FIG3: Normalized V_s Change versus Junction Temperature

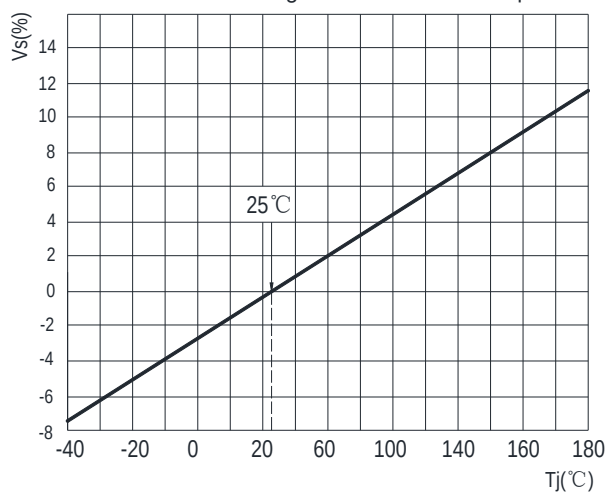
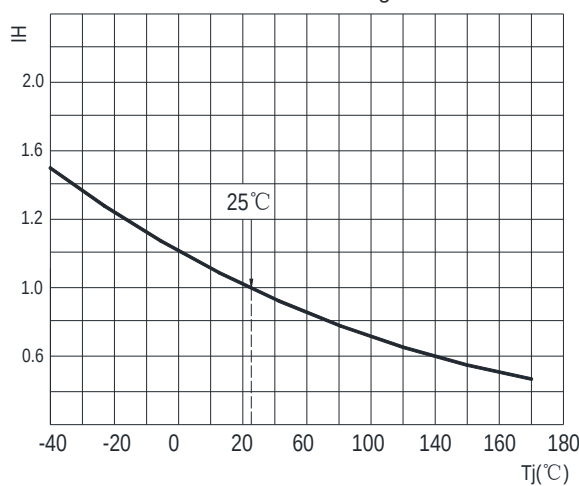


FIG4: Normalized DC Holding Current



■ Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
P0080S-P4000S	Approximate 0.0975	3000	6000	48000	13" reel