

**P0080SB THRU P3500SB**

**DESCRIPTION**

DO-214AA/SMB Thyristor solid state protection thyristor protect telecommunications equipment such as modems, line cards, fax machines, and other CPE. This Series devices are used to enable equipment to meet various regulatory requirements including GR1089, ITUK. 20, K. 21 and K. 45, IEC 60950, and TIA-968 (formerly known as FCC Part 68) .



**FEATURES**

- >Excellent capability of absorbing transient surge
- >Quick response to surge voltage
- >Eliminates overvoltage caused by fast rising transients
- >Non degenerative

**PART NUMBER AND ELECTRICAL PARAMETER @ T=25°C RH = 45%-75%**

Part Number	V <sub>DRM</sub>	I <sub>DRM</sub>	V <sub>s</sub>	I <sub>s</sub>	V <sub>T</sub>	I <sub>T</sub>	I <sub>H</sub>	C <sub>o</sub>
	V	μA	V	mA	V	A	mA	pF
		MAX	MAX		MAX		MIN	MAX
P0080SB	6	5	25	800	4	2.2	50	70
P0300SB	25	5	40	800	4	2.2	50	70
P0640SB	58	5	77	800	4	2.2	150	60
P0720SB	65	5	88	800	4	2.2	150	60
P0900SB	75	5	98	800	4	2.2	150	55
P1100SB	90	5	130	800	4	2.2	150	55
P1300SB	120	5	160	800	4	2.2	150	55
P1500SB	140	5	180	800	4	2.2	150	60
P1800SB	170	5	220	800	4	2.2	150	60
P2300SB	190	5	260	800	4	2.2	150	55
P2600SB	220	5	300	800	4	2.2	150	50
P3100SB	275	5	350	800	4	2.2	150	45
P3500SB	320	5	400	800	4	2.2	150	40

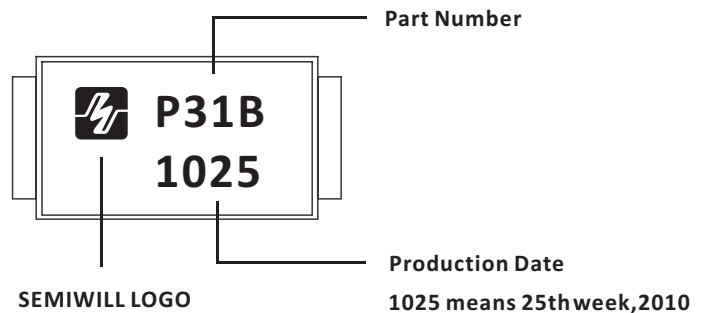
- 1、Vs is measured at 100KV/S
- 2、Off-state capacitance is measured in V<sub>DC</sub>=2V,V<sub>RMS</sub>=1V,F=1MHz
- 3、All measurements are made at an ambient temperature of 25°C
- 4、Rating Surge Voltage: 4KV(10/700uS)

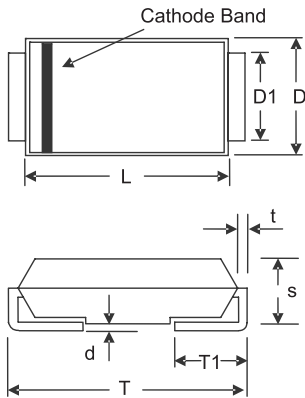
**PART NUMBERING SYSTEM**

**P**      **3100**      **SB**  
 (1)      (2)      (3)

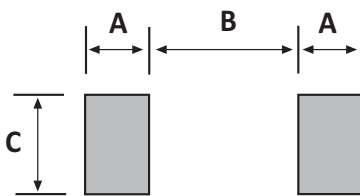
- (1) Thyristor Surge Suppressor
- (2) Series: 0080, 0300, 0800, 1800, 2300, 2600, 3100, 3500 etc.
- (3) Package : SMB 10/700uS:4KV

**PART MARKING SYSTEM**



**DIMENSIONS**

**SMB/DO-214AA**

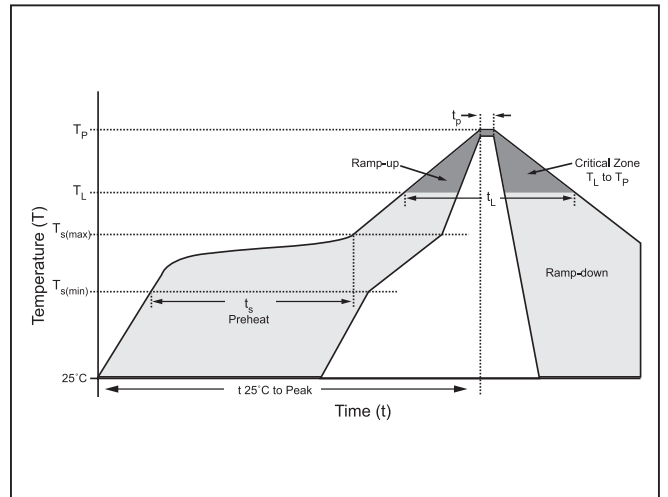
Item	Millimeters		Inches	
	Min.	Max.	Min.	Max.
L	4.06	4.57	0.160	0.180
D	3.30	3.94	0.130	0.155
D1	1.95	2.20	0.077	0.086
T	5.21	5.59	0.205	0.220
T1	0.76	1.52	0.030	0.060
d	-	0.20	-	0.008
s	2.13	2.47	0.084	0.097
t	0.152	0.31	0.006	0.012



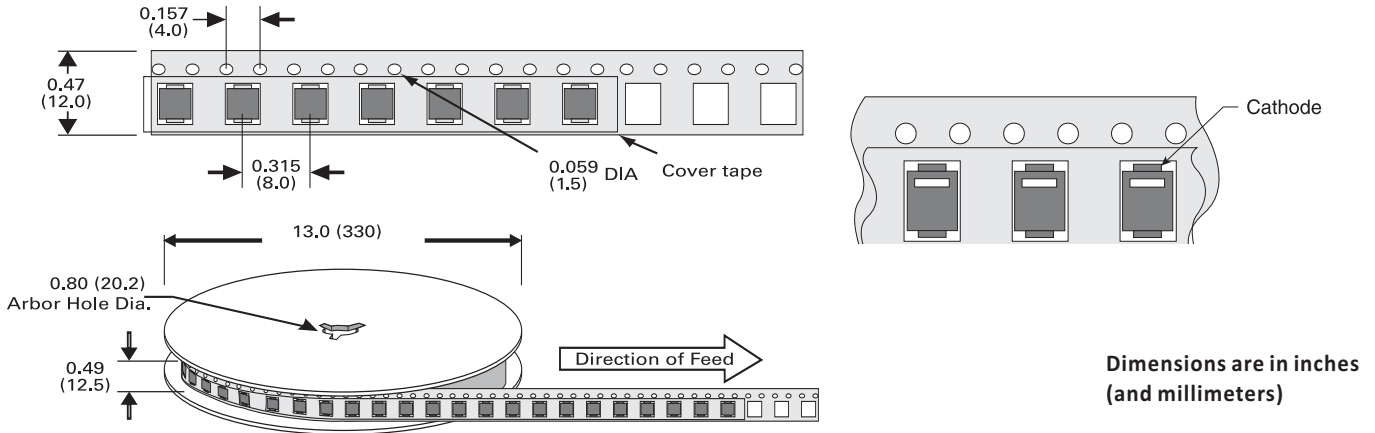
Item	Millimeters		Inchs	
	Min.	Max.	Min.	Max.
A	0.085	-	2.160	-
B	-	0.107	-	2.740
C	0.085	-	2.160	-

**SOLDERING PARAMETERS**


Reflow Condition		Lead-free assembly
Pre Heat	Temperature Min ( $T_{s(min)}$ )	150°C
	Temperature Max ( $T_{s(max)}$ )	200°C
	Time (min to max) ( $t_s$ )	60 – 180secs
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak)		3°C/second max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/second max
Reflow	Temperature ( $T_L$ ) (Liquidus)	217°C
	Time (min to max) ( $t_s$ )	60 – 150seconds
Peak Temperature ( $T_P$ )		260 <sup>+0/-5</sup> °C
Time within 5°C of actual peak Temperature ( $t_p$ )		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature ( $T_P$ )		8 minutes Max.
Do not exceed		280°C



**TAPE AND REEL SPECIFICATION**



**ORDERING INFORMATION**

PART NUMBER	MARKING	COMPONENT PACKAGE	QTY/REEL	REEL SIZE
PXXXXSB	N.	DO-214AA	2500	13"
SW-PXXXXSB		DO-214AA	2500	13"

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