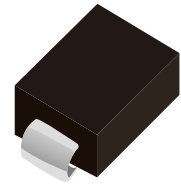
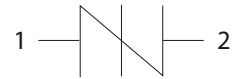


## FEATURES

- | Excellent capability of absorbing transient surge
- | Quick response to surge voltage
- | Eliminates over voltage caused by fast rising transients
- | Solid-state silicon technology, non degenerative



SMB(DO-214AA)



Schematic Symbol

## APPLICATIONS

- | Audio/Video line
- | Network and telecom
- | Data lines and security systems
- | Serial ports

## APPROVALS

<b>RoHS</b>	Compliance with 2011/65/EU
<b>HF</b>	Compliance with IEC61249-2-21:2003

## ELECTRICAL CHARACTERISTICS

Part Number	Marking	$V_{DRM}$	$V_S$	$V_T$	$I_{DRM}$	$I_S$	$I_T$	$I_H$	$C_o$
		Min. (V)	Max. (V)	Max. (V)	Max. ( $\mu$ A)	mA	Max. (A)	Min. (mA)	Typ.(pF)
P0060SB	P006B	6	15	4	5	800	2.2	40	80
P0080SB	P008B	6	25	4	5	800	2.2	40	80
P0150SB	P015B	15	25	4	5	800	2.2	40	80
P0300SB	P03B	25	40	4	5	800	2.2	40	80
P0640SB	P06B	58	77	4	5	800	2.2	120	60
P0720SB	P07B	65	88	4	5	800	2.2	120	60
P0900SB	P09B	75	98	4	5	800	2.2	120	55
P1100SB	P11B	90	130	4	5	800	2.2	120	55
P1300SB	P13B	120	160	4	5	800	2.2	120	55
P1500SB	P15B	140	180	4	5	800	2.2	120	60
P1800SB	P18B	170	220	4	5	800	2.2	120	60
P2300SB	P23B	190	260	4	5	800	2.2	120	55
P2600SB	P26B	220	300	4	5	800	2.2	120	50
P3100SB	P31B	275	350	4	5	800	2.2	120	45
P3500SB	P35B	320	400	4	5	800	2.2	120	40
P4200SB	P42B	400	520	4	5	800	2.2	$\leq$ 50	40

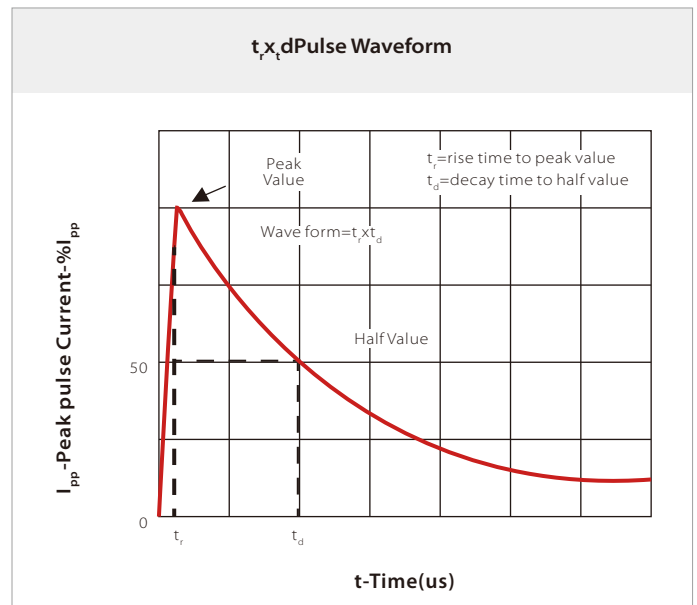
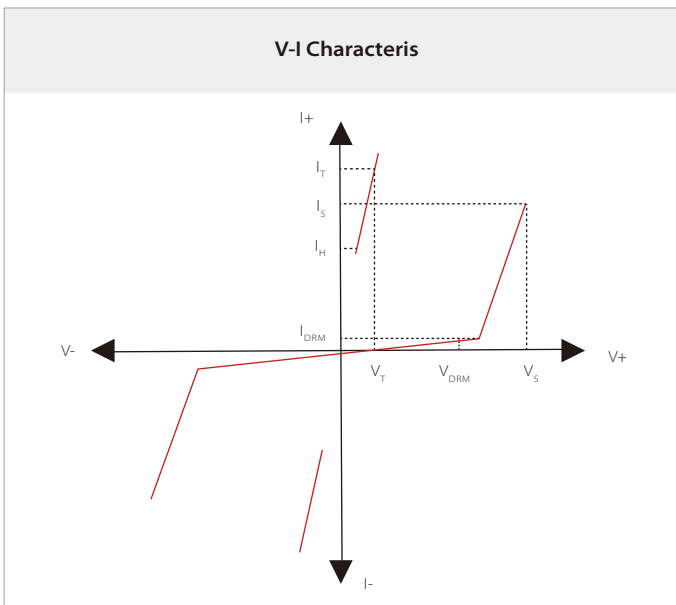
## SURGE RATINGS

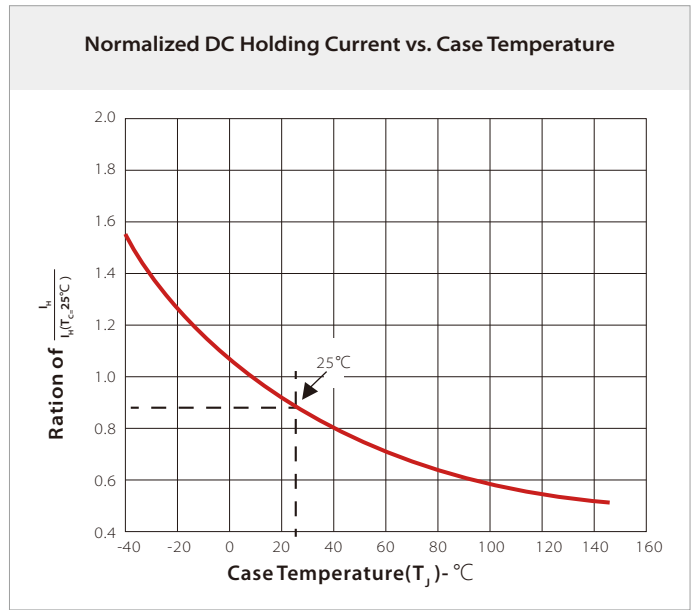
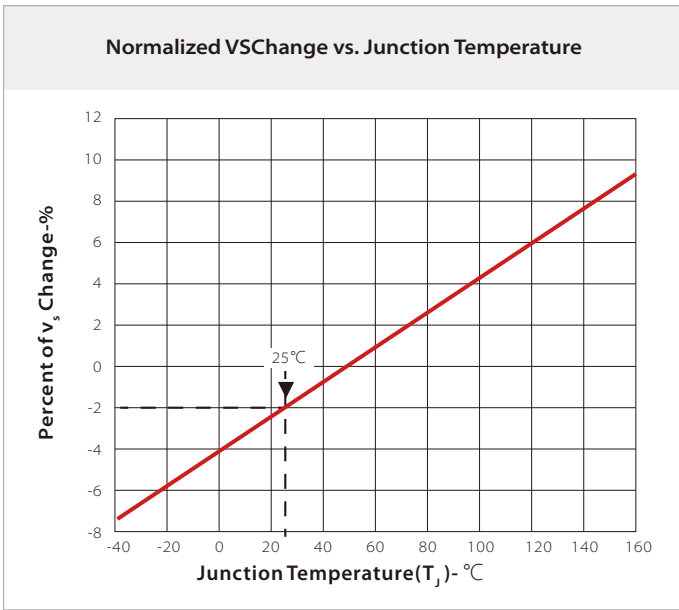
Part Number	$I_{PP}$ 2x10us	$I_{PP}$ 8x20us	$I_{PP}$ 10x560us	$I_{PP}$ 10x1000us	$V_{PP}$ 10x700us	$I_{TSM}$ 60Hz	$d_i/d_t$
	(A)	(A)	(A)	(A)	(V)	(A)	(A/us)
P0060SB Thru P4200SB	250	250	100	80	4000	25	500

## THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Junction to Ambient on printed circuit	90	$^{\circ}C/W$
$T_J$	Operating Junction Temperature	-55 to +150	$^{\circ}C$
$T_{STG}$	Storage Temperature Range	-55 to +150	$^{\circ}C$

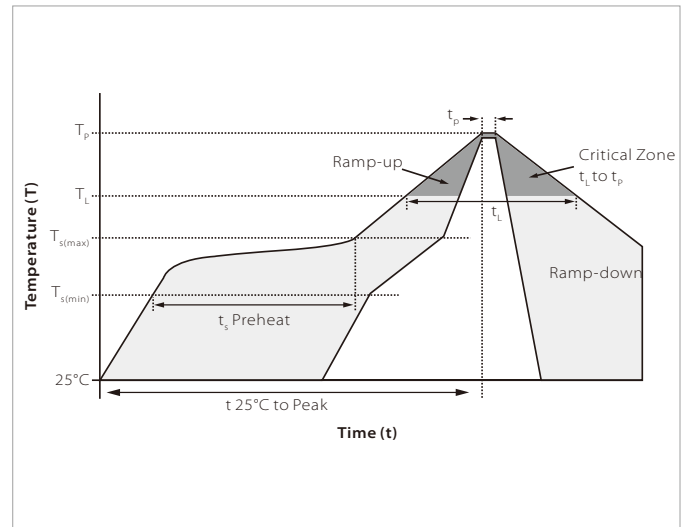
## RATINGS AND CHARACTERISTIC CURVES ( $T_A=25^{\circ}C$ )



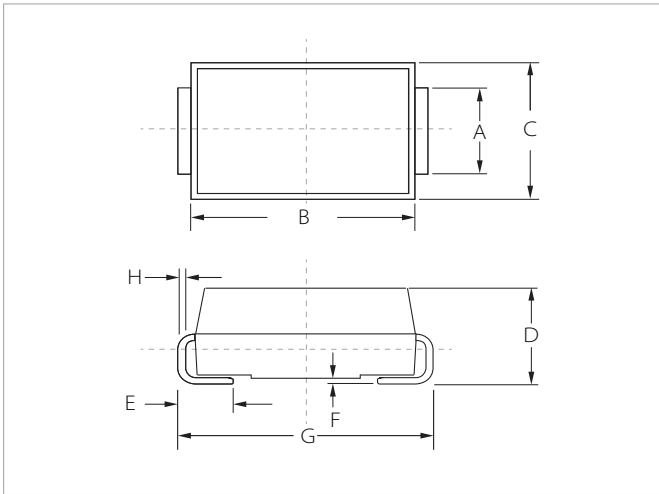


## SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max (T <sub>s(min)</sub> )	150°C
	Temperature Max (T <sub>s(max)</sub> )	200°C
	Time (min to max) (t <sub>s</sub> )	60 – 180 secs
Average ramp up rate (Liquidus Temp (T <sub>L</sub> ) to peak)		3°C/second max
T <sub>s(max)</sub> to T <sub>L</sub> - Ramp-up Rate		3°C/second max
Reflow	Temperature (T <sub>L</sub> ) (Liquidus)	217°C
	Time (min to max) (t <sub>L</sub> )	60 – 150 seconds
Peak Temperature (T <sub>p</sub> )		260°C
Time within 5°C of actual peak Temperature (t <sub>p</sub> )		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T <sub>p</sub> )		8 minutes max.
Do not exceed		260°C

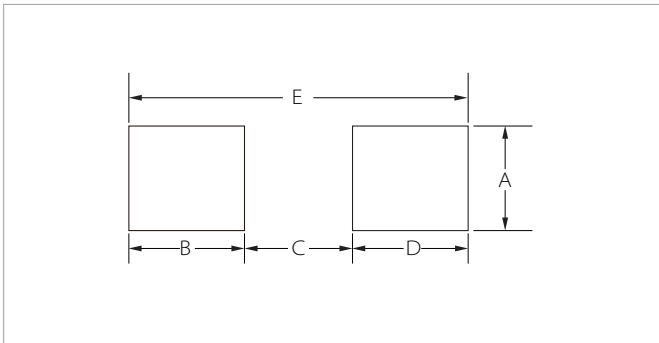


## DO-214AA(SMB) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.80	2.20	0.071	0.087
B	4.30	4.70	0.170	0.185
C	3.40	3.90	0.134	0.153
D	2.15	2.55	0.085	0.100
E	1.00	1.50	0.039	0.059
F	0.02	0.20	0.001	0.008
G	5.10	5.50	0.200	0.216
H	0.15	0.30	0.006	0.012

## RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.20	-	0.087	-
B	1.45	-	0.057	-
C	-	2.55	-	0.010
D	1.45	-	0.057	-
E	5.60REF		0.220REF	

## ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
PxxxxSB	DO-214AA(SMB)	3000PCS	13"

**Headquarters**

No.3387 Shendu Road Pujiang  
I&E Park  
Minhang Shanghai China  
201000

**Hotline**

400-021-5756

**Web**

<https://www.semiware.com>

**Sales Center**

Tel: 86-21-3463-7458  
Email: [sales18@semiware.com](mailto:sales18@semiware.com)

**Customer Service**

Tel: 86-21-5484-1001  
Email: [sales17@semiware.com](mailto:sales17@semiware.com)

**Technical Support**

Tel: 86-21-3463-7654  
Email: [fae01@semiware.com](mailto:fae01@semiware.com)

**Complaint & Suggestions**

Tel: 86-21-3463-7172  
Ext: 8868  
Email: [cs03@semiware.com](mailto:cs03@semiware.com)

**By QR Code**

Website



Wechat

To find your local partner within Semiware's global network: [www.semiware.com](http://www.semiware.com)

© 2022 Semiware Semiconductor Inc.

The content of this document has been carefully checked and understood. However, neither Semiware nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifications are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Semiware does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Chinese law and resulting disputes shall be settled by the courts at the place of business of Semiware. Latest publications and a complete disclaimer can be downloaded from the Semiware website. All trademarks recognized.