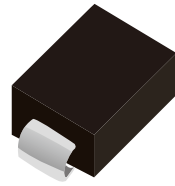


## FEATURES

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



SMB(DO-214AA)



Marking



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	$V_{DRM}$	$V_S$	$V_T$	$I_{DRM}$	$I_S$	$I_T$	$I_H$	$C_o$	$C_o$
	Min. (V)	Max. (V)	Max. (V)	Max. ( $\mu$ A)	mA	Max. (A)	Min. (mA)	Min.(pF)	Max.(pF)
STB100B6.0MC	6.0	25.0	4.0	5.0	800.0	2.2	40.0	15.0	35.0

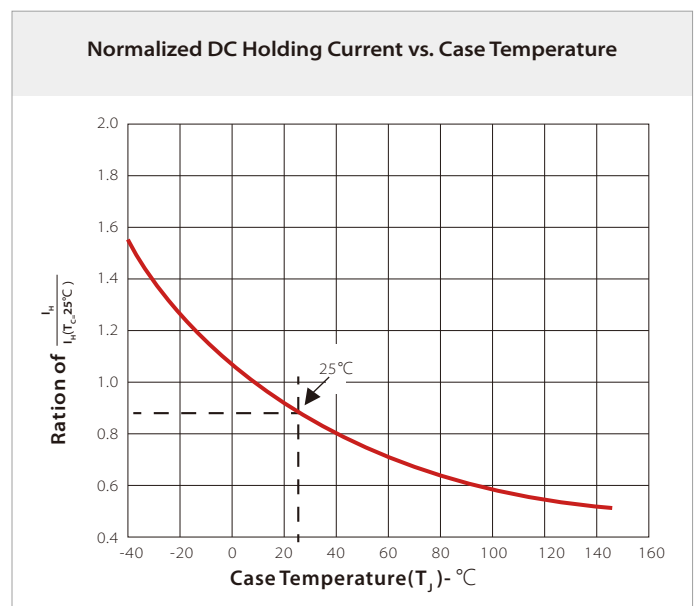
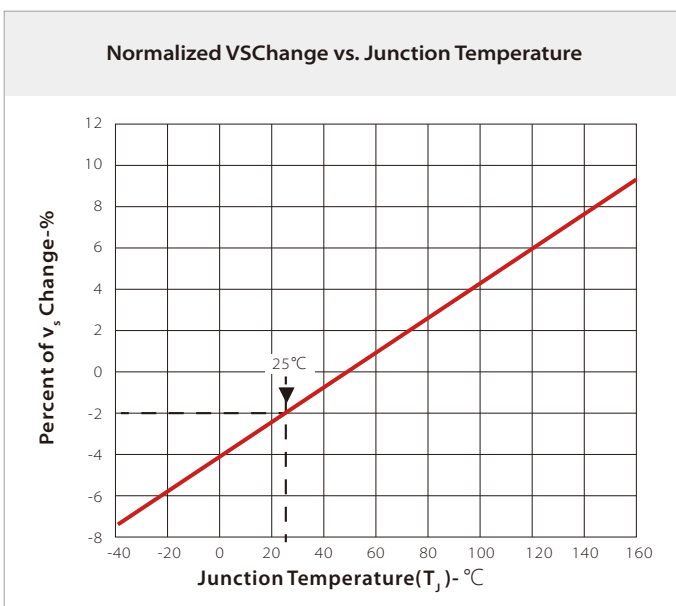
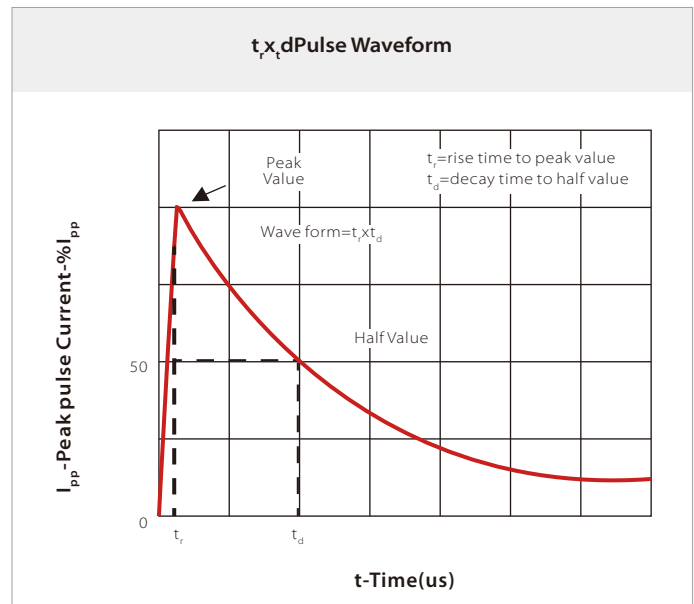
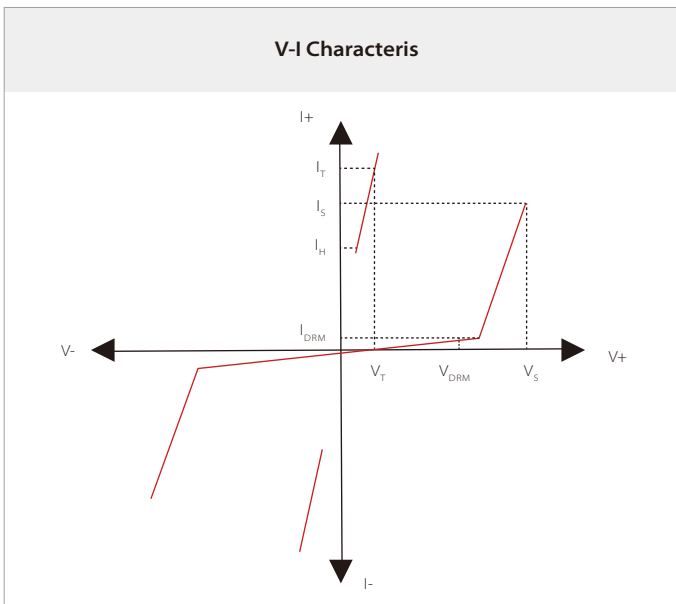
## SURGE RATINGS

Part Number	$I_{PP}$ 2x10us	$I_{PP}$ 8x20us	$I_{PP}$ 10x560us	$I_{PP}$ 10x1000us	$V_{PP}$ 10x700us	$I_{TSM}$ 50/60Hz	$d_t/d_t$
	(A)	(A)	(A)	(A)	(V)	(A)	(A/us)
STB100B6.0MC	500	400	150	100	6000	30	500

## THERMAL CONSIDERATIONS

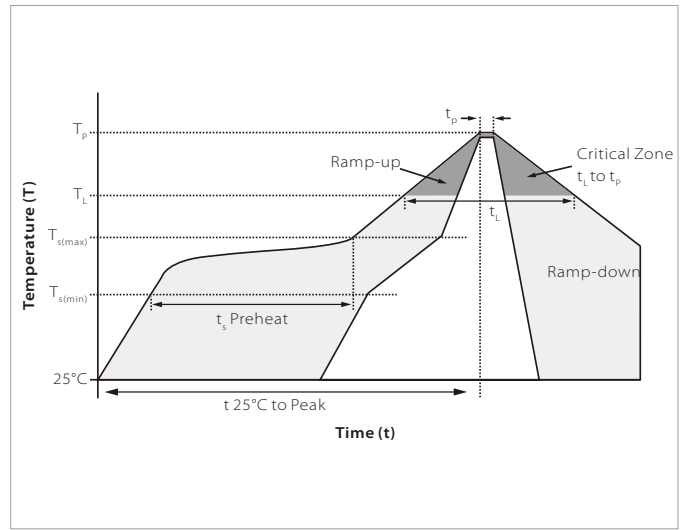
Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Junction to Ambient on printed circuit	90	$^{\circ}\text{C}/\text{W}$
$T_J$	Operating Junction Temperature	-55 to +125	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$

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

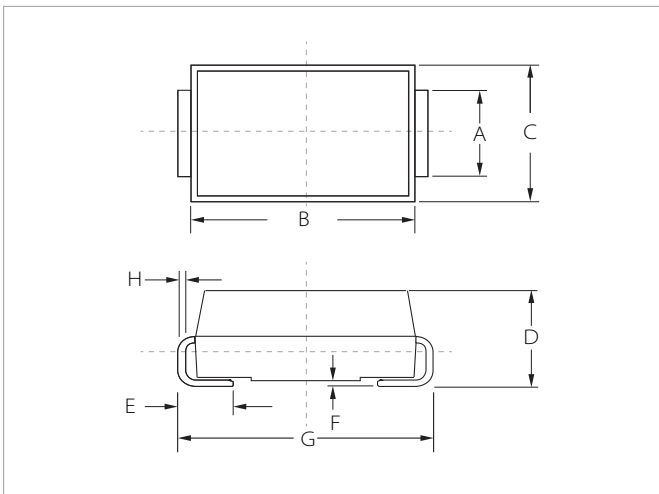


## SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ( $T_{s(min)}$ )	150°C
	Temperature Max ( $T_{s(max)}$ )	200°C
	Time (min to max) ( $t_2$ )	60 – 180 secs
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) ( $t_1$ )	60 – 150 seconds
Peak Temperature ( $T_p$ )		260°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		260°C

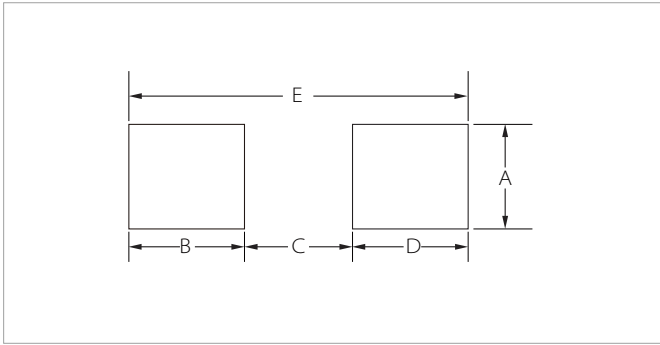


## DO-214AA(SMB) PACKAGE INFORMATION



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
STB100B6.0MC	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)

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