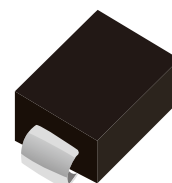


## FEATURES

- 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

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

## ELECTRICAL CHARACTERISTICS

Part Number	$V_{DRM}$	$V_S$	$V_T$	$I_{DRM}$	$I_S$	$I_T$	$I_H$	$C_o$
	Min. (V)	Max. (V)	Max. (V)	Max. ( $\mu A$ )	mA	Max. (A)	Min. (mA)	Typ.(pF)
STB100B58	58.0	77.0	4.0	5.0	800.0	2.2	120.0	80.0

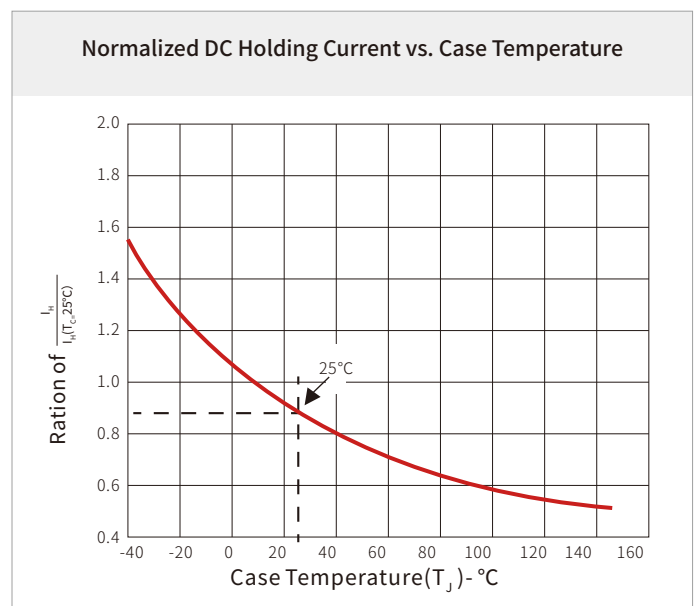
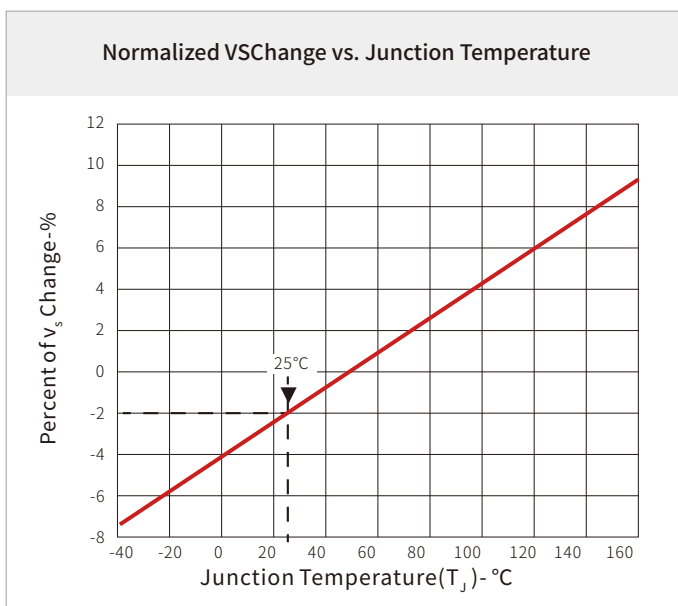
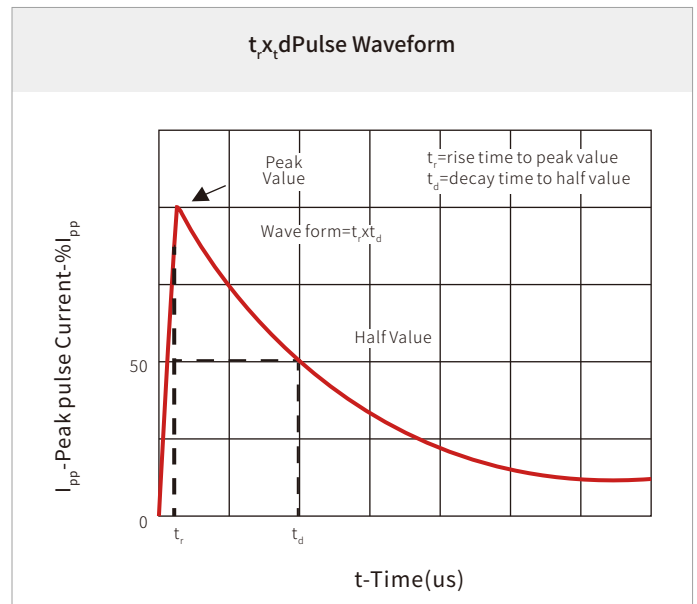
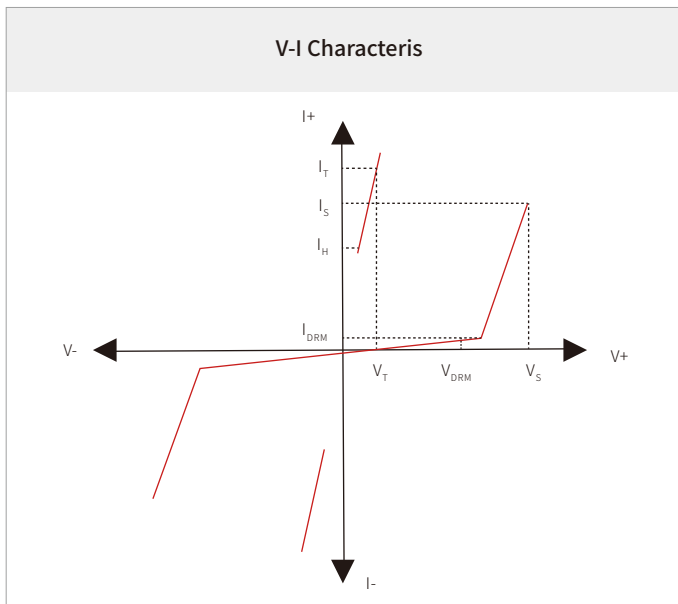
## SURGE RATINGS

Part Number	$I_{PP}$ 2x10us	$I_{PP}$ 8x20us	$I_{PP}$ 10x560us	$I_{PP}$ 10x1000us	$V_{PP}$ 10x700us	$I_{TSM}$ 50/60Hz	$d_i/d_t$
	(A)	(A)	(A)	(A)	(V)	(A)	(A/us)
STB100B58	500	400	150	100	6000	30	500

## THERMAL CONSIDERATIONS

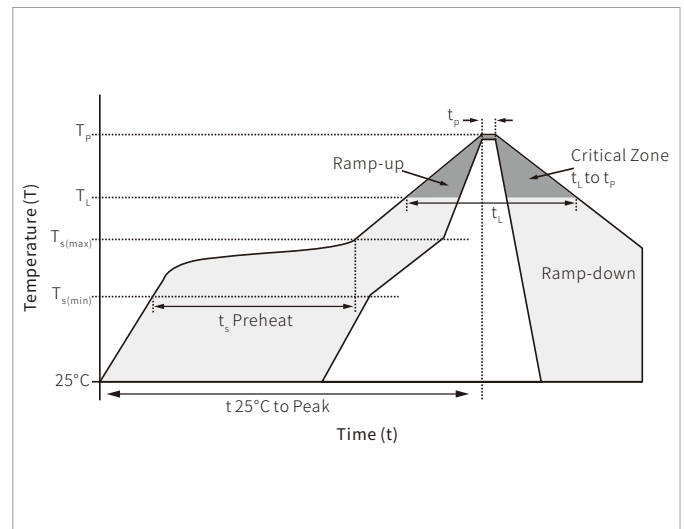
Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Junction to Ambient on printed circuit	90	°C/W
$T_J$	Operating Junction Temperature	-55 to +125	°C
$T_{STG}$	Storage Temperature Range	-55 to +150	°C

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

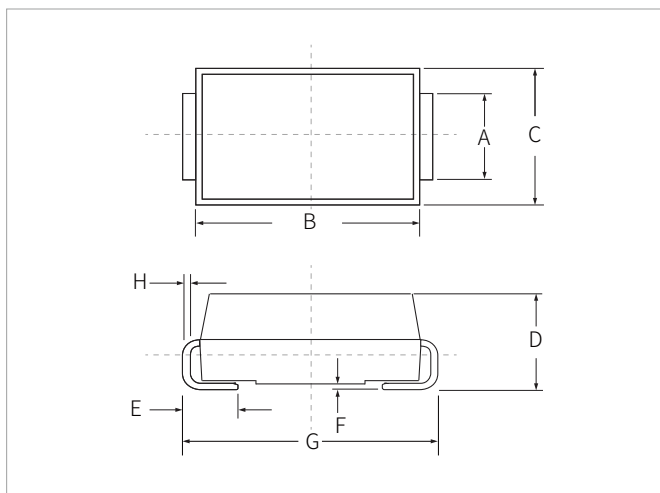


## SOLDERING PARAMETERS

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) ( $t_s$ )	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) ( $t_L$ )	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

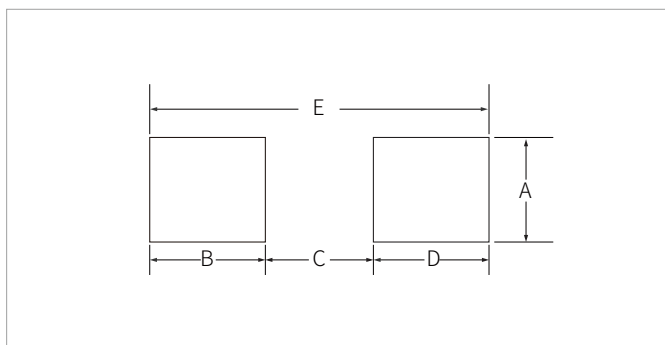


## DO-214AA(SMB) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min	Max	Min	Max
A	1.96	2.20	0.077	0.087
B	5.10	5.50	0.201	0.216
C	3.40	3.90	0.134	0.153
D	2.15	2.75	0.085	0.108
E	0.76	1.52	0.030	0.060
F	0.02	0.20	0.001	0.008
G	5.08	5.59	0.200	0.220
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
STB100B58	DO-214AA(SMB)	3000PCS	13"

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